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The extent to which the geographic proximity, quantity and quality of contact predicts dimensions of social support given to elderly women by their adult children

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The Extent to Which the Geographic Proximity, Quantity and Quality of Contact Predicts Dimensions of Social Support Given to Elderly Women by Their Adult Children

By

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B. A., University of Waterloo, 1985

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ABSTRACT

The purpose of this study was to assess the extent to which the frequency of contact, geographic proximity, and the quality of the relationship between elderly women and their most supportive adult child accounted for the degree of social support obtained by these women, and to evaluate the applicability of the Parental Bonding Instrument (PBI) (Parker, Tupling, & Brown, 1979) as a measure of the affectional and controlling aspects of the relationship between the two populations. One hundred noninstitutionalized elderly women from the City of Waterloo were interviewed in their homes and were asked to designate their most supportive adult child. Eighty-five of the 100 designated children were interviewed by phone. Five dimensions of social support delineated by Lopata (1978), namely service, financial/advice, socializing, relational sentiments and self-feeling states were the criterion variables. Regression analyses of the mother data yielded no significant predictors of instrumental support. Frequent contact, high affection and low autonomy predicted more socializing support. Affectionate relationships predicted high emotional support. From the child's perspective, more frequent contact predicted more service support, and frequent contact and the child experiencing more affection significantly predicted high socioemotional support for the mother. Reciprocity scores were not significant predictors for the mother data and were only relevant for socializing support in the child data. Apart from focussing on the contribution of the three major predictor variables, the results were discussed in terms of the relative value of mother versus child data,

the role of reciprocity and the relative value of emotional closeness as a measure of the quality of the relationship.

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INTRODUCTION

The purpose of this study was two-fold: to assess the extent to which the frequency of contact, geographic proximity and the quality of the reciprocal relationship between elderly women and their most supportive adult child accounted for the degree of social support obtained by these women, and to evaluate the applicability of the Parental Bonding Instrument (PBI) as a measure of the quality of relationships using two different populations.

This study makes a number of important contributions to our understanding of the family dynamics influencing the degree and type of social support obtained by elderly women living in the community. The study differs from those in the previous literature by focusing more intensely on the quality of the relationship between an elderly mother and her most supportive adult child, the reciprocal nature of that relationship, and how those and other factors predict both instrumental and socioemotional dimensions of social support. Further, the instruments utilized in the present study may be applied to other populations of women such as those receiving a range of community services.

Within the context of studying kinship patterns in the sociological literature, both frequency of contact and geographic proximity are used as indices of social support, or are correlated to a variety of somewhat vaguely defined supportive behaviours. The few studies that focus on the quality aspect of parent-child relationships define quality

variously as frequency of interaction, choice of confidant or degree of emotional closeness. Although designed to assess an individual's retrospective view of the parent-child interaction, Parker, Tupling and Brown (1979) developed the Parental Bonding Instrument (PBI) which is a much more extensive quantitative measure of both the affectional ('care') and controlling ('overprotective') aspects of a relationship. Pettinger (1985) demonstrated that by deleting seven of the 25 PBI items, the instrument could be used to assess current relationships between an adult and a significant elderly person, yielding both the 'care' and 'overprotection' dimensions. Further, the reduced PBI items can serve as a measure of reciprocity of relationship when it is given to both parties.

Although there are many definitions of social support, the theoretical basis of the present study stems from Kaplan's definition of social support as the degree to which a person's basic social needs are gratified though interaction with others (Kaplan, Cassel, & Gore, 1977). The operationalization of the term comes from Thoits' (1982) expansion of Kaplan's model. In Thoits' theoretical paper, she discussed the instrumental (i.e., practical aid), affective (i.e., emotional aid) and structural aspects of social support. Although there are several multi-item measures which purport to assess different dimensions of socioemotional and instrumental aid (e.g., Barrera & Ainlay, 1983; Vaux, Riedel, & Stewart, 1987) typically the items are not particularly applicable to an elderly population (e.g., "lending me a car") and describe very general supportive behaviours (e.g., "suggest a way I

might do something").

Within the context of studying the contributions of extended families to the support systems of Chicago widows, Lopata (1978) delineated five dimensions of support which are very consistent with Thoits' expansion of Kaplan's model. In contrast to other measures, Lopata's items refer to more specific behaviours which are, in the main, both appropriate for an exclusively elderly female population and applicable to an adult child as the particular referent. More specifically, she delineated the dimensions of service (e.g., help with household chores), financial assistance (e.g., help pay for rent), social (e.g., going out for lunch or dinner), relational sentiments (e.g., comforts me), and self-feeling states (e.g., makes me feel secure). Since Lopata's measure included only 25 applicable items, additional ones were derived from the literature and generated by the present author.

One hundred elderly women, aged 65 or over, were randomly selected from a list of noninstitutionalized residents of the City of Waterloo. The women were interviewed in their homes for approximately 90 minutes using a structured interview format. They were asked to provide demographic information, such as age, educational level and income, as well as information about the age, sex, geographic proximity, frequency of contact and emotional closeness of all of their children. Further, each woman was asked to designate the adult child whom she considered the most supportive and complete the modified PBI (Pettinger, 1985) and Lopata's five dimensions of social support with reference to the child

selected. With the permission of the mother, the designated child was subsequently interviewed by telephone. Using a structured interview format requiring approximately 20 minutes to complete, the same questions regarding geographic proximity, frequency of contact, emotional closeness to the mother, and the items constituting the five dimensions of social support were asked. Further, the quality of the relationship from the child's perspective was assessed by using the items from the modified PBI with respect to the mother's affectional and controlling behaviours toward the adult child.

The predictive value of mother and child data for the five dimensions of social support were evaluated both separately and in combination. Frequency of contact and geographic proximity did not significantly predict instrumental support from the mother's perspective. High frequency of contact, high 'care' and high 'overprotection' predicted high socializing support from the mother's perspective, but only high 'care' predicted high emotional support. Regression analyses using the child data revealed a somewhat different pattern of results. High frequency of contact played a more important role than close geographic proximity in accounting for instrumental support (i.e., service) from the child's perspective. High frequency of contact and high 'care' significantly predicted high socioemotional support. Similarly, mother and child differed in their perceptions of the influence of frequency of contact and the reciprocity of 'care' and 'overprotection'. From the mother's perspective, the degree of reciprocity in her relationship with her most supportive adult child was

not a significant predictor of social support. Indeed, high frequency of contact and exercising more control over the relationship predicted socializing and self-feeling states support, whereas greater control predicted relational sentiments support. From the child's perspective, reciprocity of 'care' and frequency of contact were predictors of socializing support, and frequency of contact was a predictor of emotional support.

The discussion focussed on the relative advantages of mother versus child-generated data in the amount of variance accounted for in the dimensions of social support. Only the adult child predicted instrumental support. For socioemotional support, on the other hand, the mother data predicted either an equivalent or greater degree of socializing and self-feeling states support as compared to the child data; the child data, however, accounted for approximately twice the variance for the relational sentiments dimension. The importance of reciprocity in a parent-child relationship was clearly not demonstrated in the present study. In comparing the predictive value of the PBI and the emotional closeness item as a measure of the quality of a relationship, the PBI was a better measure for the mother data and yielded similar results for the child data.

REVIEW OF LITERATURE

Network Studies of Social Support

Within the field of sociology, the social support literature is primarily concerned with description as opposed to prediction. In an attempt to give some coherence to a very extensive number of studies describing kinship patterns and behaviours, Bengtson and Schrader (1982) derived six conceptually distinct but interrelated constructs delineating social support in the family. These constructs reflect "intergenerational family structure" which refers to the number of kin and their geographic proximity; "associational solidarity" which involves both frequency and type of interaction in common activities (e.g., shopping or celebrations); "affectual solidarity" between generations which refers to subjective judgements about the reciprocal quality of interaction involving sentiments of warmth, closeness, respect, understanding, trust and communication; and "functional solidarity" which involves the reciprocal exchanges of assistance between generations (e.g., finances and helping activities). Although not of interest in the current study, "consensual solidarity" involving shared values or common beliefs and "norms or expectations regarding filial or parental behavior" are two additional constructs. The assumption therefore is that elderly individuals who rank highly on all six components, are by definition, experiencing a high level of social support. In assessing social support, not all sociological studies

assess all components. In fact, number of kin, geographic proximity, frequency of contact and type of interaction are the most common factors examined.

In examining geographic proximity, Shanas (1979b) analysed data collected by the Harris National Survey in 1975 with a sample size of 5755. Twenty-one per cent had no children or no surviving children. Most elderly with children lived close to at least one of them. Approximately 79% of the elderly with children lived in the same household, or within a half hour's drive of at least one child. More specifically, of those not living in the same household, 27% lived between ten minutes and half an hour's drive, and 34% resided within a ten minute drive. Although Shanas maintained that frequency of contact was not related to geographic proximity, she did not provide any statistical data to support this conclusion.

Leigh (1982), Bowling (1984), and Kivett and Atkinson (1984) all found that interaction with children was influenced by geographic proximity. Leigh (1982) found that distance from respondent was a significant predictor for amount of contact with parents. As a measure of geographic proximity, each elderly respondent was asked how far away each type of kin they discussed lived. The five categories of distance were: in the same town; within 50 miles; 50 to 100 miles; 100 to 500 miles; and over 500 miles. Bowling (1984) evaluated the type of help provided to aged widowed persons, as well as the identity and the geographic proximity of these providers. The specific identity of individuals was not always clear since the term familiars was used to

include children (46% daughters and 33% sons), relatives (16%), friends and neighbours (14%), and professionals (1%). Deaths were randomly selected from the Population Censuses and Surveys in England, and the surviving spouses and their designated familiars were interviewed in their homes five months after the death with a sample of 213 bereaved spouses. In 86% of instances, the familiar (n=213) of the bereaved spouse was named as being the person they had seen most frequently, the one who was the most comfort to them, and the one who gave them the most practical help. Seventy-six per cent of the widowed lived alone; 14% of familiars who lived with the widowed person alone or with others were predominantly (90%) their children. When children were selected as familiars, they were more likely to be seen daily than other familiars. Most familiars (98%) who saw the widowed daily lived within a 15 minute drive. Although two-thirds of those requiring help (n=63) with personal tasks, household tasks, or those involving mobility received help, only 35% received help from familiars. The percentage of children in each of these categories was not reported. Kivett and Atkinson (1984) asked the elderly if the referent children (i.e., child of most contact) lived in the same household, 10 minutes away or less, 11 to 30 minutes away, 31 to 60 minutes away, over 60 minutes to less than a day away, or one day or more away from them. The percentage of children in each of these categories was not reported. Fifty-six per cent of parents with one child (i.e., group G1), 55% of those with two to three children (i.e., group G2), and 64% of those with four or more offspring (i.e., group G3) lived within 30 minutes of their referent child. They found that

practical assistance decreased as a function of distance, but economic assistance increased.

Hays (1984) used proximity of children as an assumed index of assistance received by the elderly parent. He gathered information on the availability and proximity of children and siblings from obituaries in Wichita, Kansas for 338 people aged 45 to 64 years and 1075 aged 65 to 101 years. Wichita, Kansas and the surrounding communities included those individuals residing in Segwick County or Butler County in Kansas, but the exact size of this area was not provided. Only the data for the children of respondents aged 65 years or older is of interest in the current study. Similar to Shanas (1979a, 1979b), 20% of this sample had no surviving children. Further, they reported that of those with living children, 64% had one or more children within the Wichita area, and 66% had one or more children within 50 miles of that area. Hays noted that there were significant proportions of people over the age of 65 who were without a spouse or other family members to provide support if incapacity occurred. Hays concluded that the frequency of contact with parents is greater when kin live in close proximity and can visit daily or weekly. Thus findings from the literature dealing with geographic proximity suggest that most parents live close to at least one child, and those who live close reportedly provide the most affective and instrumental assistance. Geographic proximity is correlated with frequency of contact and is also used as an indirect measure of assistance provided.

Frequency of contact plays a role in many studies within the

sociological literature. However, it is a major focus of interest in the studies conducted by Shanas (1979a), Conner, Powers and Bultena (1979), Kendig and Rowland (1983), Leigh (1982), and Kivett and Atkinson (1984). In order to assess frequency of contact, Shanas (1979a) examined national survey data for 1975 as reported in Shanas (1979b) of the noninstitutionalized American population aged 65 and over. Twenty-one per cent had no children or no surviving children. Of the remaining families, 77% of elderly with children (including the 18% living in the same household as a child) saw at least one adult child within a week. In fact, 53% saw at least one of their children one or two days before the interview and the remaining 24% saw them two to seven days before. Twelve per cent failed to see a child a week before the interview but saw one within a month and 11% had not seen their children in more than a month. Shanas utilized frequency of contact as an assumed index of social support, whereas Conner, Powers and Bultena (1979) used frequency of contact (i.e., daily, weekly, monthly or yearly face-to-face contact) as a quantitative measure of social interaction from the perspective of the elderly. They did not report data separately for children, but categorized them as "immediate family". Conners et al. did not find that the frequency of interaction with members in the social network was important for the life satisfaction of the elderly. Both Shanas and Conner et al. focused on frequency of contact as it related to social interaction, rather than using frequency of contact as a measure of quality.

Unlike Shanas (1979a) and Conner et al. (1979), Kendig and Rowland

(1983), Leigh (1982), and Kivett and Atkinson (1984) used frequency of contact as a measure of the quality of the relationship. Kendig and Rowland (1983) surveyed 1050 elderly and found that the average rate of contact was 10 visits and 10 phone calls with children each month, and only 12% saw their children less than once a month. When frequency of contact and quality of the relationship (as assessed by Rosow's (1967) measure of emotional closeness) were correlated, the findings indicated that those who saw their children the most enjoyed seeing them more (i.e., higher emotional closeness) than those who saw their children less frequently. Leigh (1982) evaluated frequency of contact by asking elderly parents how often they saw, wrote or phoned each of their kin, and found that affectual closeness was a key predictor of more frequent parent-child interaction and further that interaction with children remained constant throughout the lifespan of the parent. The studies by both Kendig and Rowland (1983) and Leigh (1982) found that frequency of contact and quality of relationship were positively correlated.

Kivett and Atkinson (1984) assessed the frequency of interaction between adult children and elderly parents on the assumption that it was a measure of quality. They compared the filial expectations and frequency of parent-child association and assistance provided to 279 adults aged 65 years or older who had at least one adult child. Although the study was primarily concerned with the assessment of help as a function of the number of children, they used two contact measures, namely the 'recency with which respondents had seen referent children' and 'association'. The referent child was defined as the child of most

contact. The former measure was determined through responses to the question "When did you last see (child of most contact)?". The possible responses included: live in same household, today or yesterday, 2 to 7 days, 8 to 30 days, 31 days to a year, or not in the past year. Association was a composite measure of the frequency with which children wrote, phoned or had personal contact, ranging from daily to never, on a nine-point scale. The face-to-face component of the association measure was comprised of the frequency of interaction with children in twelve activities (e.g., shopping and recreation). Help received was measured by the frequency with which the elderly obtained assistance, such as housekeeping or minor household repairs, decisions, legal aid, financial aid, and other help specified by respondents. Elderly parents had more social interaction and were given more assistance when they had higher frequency of contact using composite scores, but not recency scores. Kivett and Atkinson used frequency of contact as an index of quality and found that frequency was correlated with social support. Therefore the findings from these five studies with frequency of contact indicate that frequency of contact is used as an index of social support, a measure of social interaction, and a measure of the quality of the relationship. In addition, frequency of contact was found to be unrelated to life satisfaction, but positively correlated with both social support and emotional closeness.

Quality of Parent-Child Relationship

McPherson (1983) has argued that "little attention has been

directed toward studying the quality of parent-child relationships... and there is a need to examine more closely and directly the relationship between the quantity of interaction and the quality of the relationship" (p. 340). Unfortunately, the quality of the relationship is rarely assessed directly. Some indirect measures of quality include frequency of interaction (e.g., Kivett & Atkinson, 1984; Conner, Powers & Bultena, 1979), and choice of confidant or an intimate (e.g., Hoyt & Babchuk, 1983). Two published studies used a more direct, although somewhat inadequate measure of quality: degree of emotional closeness. In surveying 1050 elderly aged 60 to 64, 65 to 74, and 75 or older who resided in private households in Sydney, Australia, Kendig and Rowland (1983) measured quality of the relationship provided by the social network using Rosow's (1967) three-choice question, from the perspective of the elderly parent. Forty per cent of the sample "enjoyed seeing their children more than anything else," 57% "enjoyed seeing them whenever they could," and 3% found that "seeing them was a strain." Children were ranked second as confidants, with spouses providing the most emotional support. Two-thirds of the elderly parents felt that their children were very devoted. Elderly parents in this study indicated that they received strong affectual support from their children.

Although not the primary focus of her study, Leigh (1982) also examined the quality of the parent-adult child relationship from the perspective of the elderly parent. Subjects were asked how close they felt to each particular person in their social network. One data set

was derived from interviews of 799 elderly adults in North Carolina (1963-1964) and another from a mail survey of 478 randomly selected respondents from Indiana (1968). Findings indicated that affectual closeness was a key predictor of more frequent parent-child interaction.

Parental Bonding Instrument

The Parental Bonding Instrument (PBI) developed by Parker, Tupling and Brown (1979) was designed to evaluate an individual's retrospective view of parent-child interaction. It is a much more extensive quantitative measure of the affectional and controlling aspects of a relationship than other scales assessing quality. They described the interrelationship between parent and child as being reciprocal, dynamic and evolving. The authors theorized that two principle source variables, an affectional dimension which they denoted as 'care,' and a dimension of psychological control over the child which they labelled 'overprotection,' affected the parental contribution to bonding. Items were generated from clinical notes and the literature, revised with a series of pilot studies using various types of samples, such as students and medical staff, and reduced to four factors (dimensions) and then reduced further to two dimensions. The Thematic Apperception Test (Murray, 1943) and an interview with a sample comprised of medical students, psychiatric nurses, technical college students and parents of children at a local school, were used to validate the PBI. There were 71 males and 79 females in the sample. When a factor analysis was performed, the care and overprotection dimensions emerged accounting for

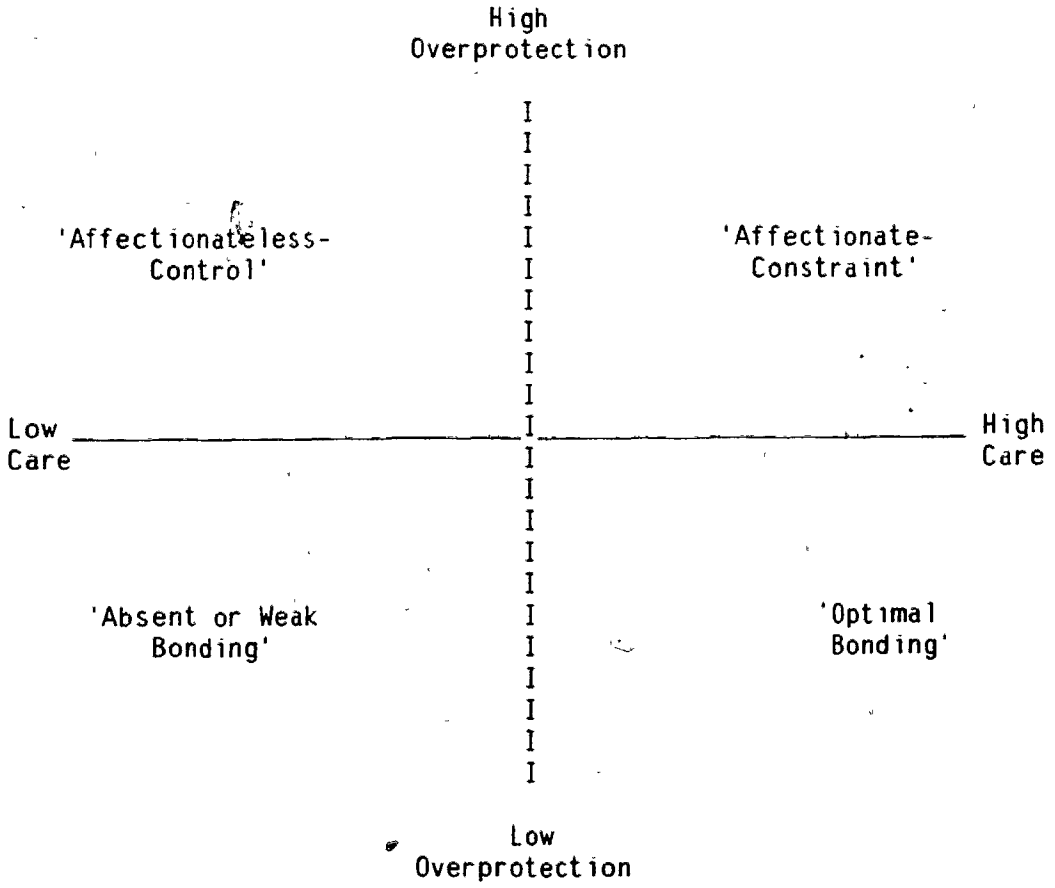
28% and 17% of the variance respectively. The final scales consisted of 12 'care' and 13 'overprotection' items, with a four-point Likert scale. All correlations in this study were significant at the .001 level. Reliability was assessed in four ways. Responses to two "identical" items in the questionnaire were correlated to verify that the scale was reliable (r=.70). Further, split-half reliability was assessed as r=.88 for 'care' and r=.74 for 'overprotection'. Test-retest reliability with 17 subjects and a three week interval yielded r=.76 for 'care' and r=.63 for 'overprotection.' Two raters conducted a joint interview with 65 of the subjects, and then independently assigned a 'care' (r=.85) and an 'overprotection' (r=.69) score for each of the respondent's parents on the basis of their observations. Two other raters independently assessed the content of these interviews. Good concurrent validity (r=.77 for rater one and r=.78 for rater two) for 'care', and fair concurrent validity (r=.48 for rater one and r=.51 for rater two) for 'overprotection' was established when the two raters' scores on both dimensions obtained at the interview were correlated with those produced by the scales. When the scores on the 'care' and 'overprotection' scales were intercorrelated for all 300 parents of the sample (i.e., the mothers and fathers for 150 respondents), the correlation was r=-.24, indicating that the scores for the two dimensions were not independent, although the correlation was low but significant. The 'overprotection' scale is a weaker component than the 'care' scale because 'overprotection' was the second factor and had a lower concurrent validity score. Hence the correlation of the 'care' and

'overprotection' scales must be interpreted with caution. The mean age of the sample was 25 and the age range was 17 to 40 years. Age of the sample was not correlated with either dimension. The authors suggest that the scales can therefore be used separately or together as a reliable and valid parental bonding instrument. Parker et al. (1979) suggested that four types of parental bonding can be studied: high 'care' - low 'overprotection' (optimal bonding), low 'care' - low 'overprotection' (absent or weak bonding), high 'care' - high 'overprotection' (affectionate constraint), and low 'care' - high 'overprotection' (affectionateless control) (Figure 1).

Although the PBI was devised to assess an adult's retrospective perception of a parent's behaviour toward him/her as a child, Pettinger (1985) successfully demonstrated that the 'care' and 'overprotection' dimensions could also be derived when the referent was a significant elderly person other than a parent. Using a sample of 216 university students, a factor analysis of the 25 PBI statements yielded four factors which accounted for 55.9% of the variance. The first factor (the 'care' dimension) accounted for 29.9% of the variance, the second factor (the 'overprotection' dimension) accounted for 13.8% of the variance, and the third and fourth dimensions, comprised of items reflecting the 'overprotection' dimension, accounted for 7.5% and 4.7% of the variance respectively. A subsequent factor analysis was performed with the number of factors extracted limited to two in order to be consistent with Parker et al. (1979). Factor weightings for the 12 items constituting Factor 1 ('care') ranged from .48 to .78

Figure 1

Four Quadrants



(average=.64). Factor weightings for the 13 items comprising Factor 2 ('overprotection') ranged from .37 to .67 (average=.54). It should be noted that for Factor 1, only one item was weighted above .30 on the second factor, whereas four Factor 2 items exceeded that value on Factor 1. This indicates that 'overprotection' was not as clearly differentiated as was 'care'. The reliability of 'care' and 'overprotection' as measuring instruments of the quality of the relationship was not reported.

In order to assess the current quality of a relationship with a significant elderly person, Pettinger retained 18 of the PBI items deemed as appropriate descriptors of current interactions and excluded 7 'overprotection' items (Appendix J). A factor analysis of these statements produced three significant factors which accounted for 53.6% of the variance. The first factor (the 'care' dimension) accounted for 32.8% of the variance and the second (the 'overprotection' dimension) accounted for 14.0% of the variance. The 2 items comprising the third dimension were confusing as a factor and accounted for only 6.8% of the variance (i.e., "Enjoyed talking things over with me" and "Invades my privacy"). A factor analysis was then performed with the number of factors to be extracted limited to two. Factor weightings for the 12 items constituting Factor 1 ('care') ranged from .45 to .71 (average=.63), whereas factor weightings for the 6 items constituting Factor 2 ('overprotection') ranged from .36 to .73 (average=.56). No items exceeded a factor weighting of .30 on the other factor. The average inter-item correlation was $\underline{r}$=.41 for the 'care' scale and $\underline{r}$=.32

for the 'overprotection' scale using the data from the revised 18-item PBI (Pettinger, 1985).

A major advantage of Pettinger's modified PBI over other measures of quality is that it is a multi-item measuring instrument which taps both the affectional (i.e., the 'care' dimension) and controlling (i.e., the 'overprotection' dimension) aspects of interpersonal behaviour. Further, the content of the items allows one to consider the quality of the relationship from the perspective of both parties and therefore the extent to which this is a reciprocal relationship.

Reciprocity Literature

Within the gerontological literature, the degree to which elderly persons and the individuals constituting their social network participate both in giving and receiving is referred to as reciprocity. Most studies which appear to deal with reciprocity measure reciprocity of activity, but few assess reciprocity of relationship. This concept incorporates reciprocal activities (i.e., what services they provide each other), as well as reciprocal relationships (i.e., how they feel about each other and how they help each other emotionally), although clear differentiation between the two is not always made in the research literature. Elderly persons who engage in reciprocity of activity with their supporters demonstrate less depression (Dunkle, 1982 and Stein, Linn & Stein, 1982), and exhibit higher social participation, self-esteem and life satisfaction (Stein et al., 1982). On the other hand, Vaux and Harrison (1985) did not find that reciprocity of activity

was a significant contributor to satisfaction with social support. Kendig and Rowland (1983) assessed reciprocity of activity by asking the elderly what types of assistance they provided for their children (e.g., housekeeping and babysitting) and the kinds of help that their children gave to them (e.g., financial, housework, or transportation). Two-thirds of the elderly parents felt that their children helped them as much as they could. They found that the aged preferred to reciprocate help, rely on themselves or hire someone to help, rather than to burden others and acknowledge dependency in accepting the control of another person.

Black (1986) examined both the reciprocity of activity and relationship experienced by 12 male and 36 female elderly subjects who were former clients of public health nursing. All were living independently in the community with minimal formal supports and did not have serious health or social problems. Subjects were asked the extent to which they provided emotional and instrumental support to their supporters, and the amount that their supporters gave in return. Black used the Norbeck Social Support Questionnaire (NSSQ) (Norbeck, Lindsay, and Carrieri, 1982; 1983) to assess the amount of emotional and instrumental aid provided to the elderly subjects. In addition, she reversed the direction of the questions on the NSSQ (i.e., Black's subscale examined the flow of support from the older person to the supporter, whereas the NSSQ examined the flow from the supporter to the older person), added an advice item concerning advice given and received, and referred to this as the Black Reciprocity Subscale. The

Black Reciprocity Subscale was designed to determine how the elderly reciprocated the assistance provided by their supporters. The NSSQ was comprised of three composite variables: 'total functional' combined the scales for emotional support and both short and long-term aid, 'total network' combined the subscales for size of network, duration of contact and frequency of contact; and 'total loss' of support combined the number of people who were lost from the subject's social group within the last year and the amount of support lost. The respondents named all individuals who comprised their social support group, stated their relationship to each person, and responded to the NSSQ and the Black Reciprocity Subscale for each one of them. Since the primary concern was in predicting whether reciprocated emotional and instrumental support related to health, she employed the McMaster Health Index Questionnaire (MHIQ) (Chambers, 1982) as a measure of physical, emotional and social functioning. The combined items on her reciprocity subscale assessing reciprocity of activity and relationship were significantly correlated ($p \leq .05$) with the emotional functioning ($r = .46$) and the social functioning ($r = .37$) components of the health index, but insignificantly correlated with physical functioning ($r = .23$). It should be noted that the total Norbeck scores, which did not involve reciprocity, yielded almost identical correlations with the health indices. When elderly subjects were asked to assess the extent to which the members of their social network provide aid and emotional assistance, the correlations with the health indices were very similar (i.e., $r = .41$, $r = .38$ and $r = .19$ respectively) to those using the Black

Reciprocity scale. Although Black interpreted her findings as demonstrating the importance of reciprocity, there are alternative interpretations of these data (e.g., reciprocity is irrelevant).

Rook (1987), like Black (1986) examined both reciprocity of activity and relationship experienced by 120 elderly widows. The purpose of the study was to examine the reciprocity of social exchange and social satisfaction among older women with their adult children. The women were selected from a Los Angeles senior citizen centre although interviews for five women were deleted due to extensive missing data (i.e., n=115). Most of them reported generally good health and maintained independent households. Information about the respondents' social networks and patterns of social exchange was obtained by the method of network assessment developed by Fischer and his collegues (Fischer, 1982; McCallister & Fischer, 1978). Subjects were asked to identify people with whom they engaged in three different categories of social exchange: companionship (i.e, who invited them to socialize, whom they called for telephone conversations and whom they regarded as a best friend), emotional support (i.e., to whom they confided personal problems and to whom they turned to when depressed), and instrumental support (i.e., to whom they turned for help during illness and for help with financial difficulties). A reciprocal measure was devised by asking seven parallel questions about inputs provided to the respondent (e.g., whom they invited to socialize, who called them for phone conversations and who regarded them as a best friend). One global and two specific dimensions of social satisfaction were also assessed. The

respondents' feelings of loneliness as measured by nine items taken from different scales was the global dimension. Four items were taken from the UCLA Short-Form Loneliness Scale (Russell, Peplau, & Cutrona, 1980), namely, those assessing how frequently one felt apart from, in tune with and well known by others, and how often they could find companionship as they needed it. The three items taken from Fischer's (1982) study of social networks included items asking if the subjects wished they knew more people with whom they could socialize, discuss personal matters and problems, and turn to for help with practical problems. The eighth item asking subjects whether they had felt lonely and remote from people in the past two weeks, was taken from Bradburn's (1969) study of psychological well-being. The ninth item asking women to rate their current lives on the dimensions of friendliness and loneliness, was embedded in a series of semantic differentiated ratings by Campbell, Converse and Rodgers' (1976) research on the perceived quality of life. These multiple assessments of loneliness were made at various points in the interview. The two specific dimensions of social satisfaction were assessed by asking how satisfied they felt about their friendships and relationships with their children. Their feelings of closeness and comfort with their friends and children were also evaluated. The control variables included age, education and health of the respondent; geographic proximity of all members in the social network (i.e., using a four-point scale ranging from 'live in same neighbourhood' to 'live outside state'); and frequency of interaction with those members (i.e., using a six-point scale ranging from 'daily' to 'once a year or never').

Rook (1987) performed a hierarchical regression analysis in which the control variables were entered in a first step and the two reciprocity variables were entered in the second and third steps. The overall difference score and the square of the overall diffence square were the two reciprocity variables and were tested for linear and curvilinear (i.e., quadratic) relations with loneliness (cf. Beckman, 1981). If the linear term was significant, then receiving more than one provides was expected to be associated with less loneliness as a simple self-interest factor would be in operation. However, if the quadratic term was significant, then the equity prediction would be correct and loneliness was predicted to be associated with both giving more than one receives and receiving more than one gives (i.e., discrepancy or lack of reciprocity). The results of the analysis indicated that there was a curvilinear relationship between loneliness and reciprocity, and thus the equity theory was correct. In addition, support was provided for the prediction that the women's exchanges with friends were more likely to be reciprocal and satisfying than those with children. Respondents were less likely to receive companionship initiatives than they were to give these initiatives. They were also less likely to obtain emotional support than they were to provide it. Therefore Rook concluded that the meaning of reciprocity was contingent upon the content of the exchange and on one's role relations. This study was important because it assessed both reciprocity of activity and relationship from the perspective of elderly women, provided a method with which reciprocity can be evaluated (i.e., the linear and quadratic equations in a

hierarchical regression), and used reciprocity to evaluate social support.

The affective quality of relationships between the elderly and their adult children from the perspective of both parties was explored by Johnson and Bursk (1977) and Johnson (1978). The purpose of these studies was to assess the extent to which the mothers' health, living environment, finances and attitude toward aging affected the affectual quality of the parent-child relationship. Although not concerned with social support, the studies are worth noting however, as they are the only ones in the literature that focus on reciprocity of relationships from the perspectives of both parties. The somewhat inadequate reciprocity score was derived from four questions on a four-point scale regarding openness of the communication between them, a rating of their relationship, their ability to count on each other and their enjoyment of each other's company. Parent-child pairs were interviewed independently with a semi-structured interview format. The first study involved 54 parent-child pairs and the second examined 90 mother-daughter pairs; the elderly women were predominantly widows in both studies. Findings indicated that there was a fairly high agreement between parents and children as to the rating of the relationship. In cases where the interviewer noticed difficulties in the relationship, the child's rating score was closer to the interviewer's subjective rating than was the parent's score. An examination of the potential impact of congruent and incongruent parent-child relationships on the extent and type of social support provided would be a major contribution

to both reciprocity theory and the social support literature.

Social Support Scale Literature

A number of researchers and reviewers have noted that the lack of a consensual definition of social support has resulted in the term being applied to a wide range of phenomenon both within and across the disciplines of sociology, psychology, social work and nursing. More recently authors such as DiMatteo and Hays (1981), Tardy (1985), Thoits (1982), Turner, Frankel and Levin (1983), as well as Vaux, Phillips, Holly, Thomson, Williams and Stewart (1986) have argued that conceptual clarification is needed as well as more focussed theory-based measures. Many current researchers (e.g., Kaplan, Cassel, & Gore, 1977; Thoits, 1982; Vaux, 1982), particularly in the field of psychology, have adopted as a theoretical starting point Cobb's (1976) three concepts of social support which focus on the interpersonal aspects of a person's life, namely, information that one belongs to a network of mutual obligations, that one is cared for and loved, and that one is valued and esteemed.

Kaplan, Cassel and Gore (1977) modified Cobb's conceptualization of social support and defined it as the degree to which the social needs of an individual are gratified through interaction with others. These basic social needs include esteem, affection, belonging, security, approval, and identity. Kaplan et al. operationalized Cobb's components of love and self-esteem, but ignored the concept of mutual obligation. Under the supervision of Cobb, Kaplan developed and partially tested a story-identification technique composed of 16 sets of vignettes as a

measure of global social support to assess these basic social needs. Each set is comprised of three stories that describe different individuals having various levels of support. Participants are required to identify themselves with the stories by responding on a five-point scale. Greater support is indicated by high scores for each set, and then the scores for all sets used are summed. The problem with Kaplan's vignettes is that they are restricted to use with emotional support, ignoring instrumental support. Further, it is a very global measure of affective support and the vignettes require subjects to identify with different anonymous individuals as opposed to one referent only.

Thoits (1982) expanded Kaplan's (1977) model to include both affective and instrumental aspects of social support. She theorized that the social needs outlined by Kaplan could be met by either socioemotional assistance such as affection, sympathy, understanding, acceptance and esteem from significant others, or the provision of instrumental aid such as advice, information, help with family or work responsibilities and financial aid. Thoits indicated that there are socioemotional overtones to instrumental aid because practical help assures one that he/she is cared about. Thoits proposed that social support is that subset of people in a person's total social network upon whom he/she depends for instrumental assistance, socioemotional aid or both. Unlike Cobb's (1976) emphasis on mutual obligations, Thoits noted that this definition does not require these supportive behaviours to be reciprocal.

Vaux (1982) incorporated the theoretical constructs of both Cobb

(1976) and Thoits (1982) by conceptualizing social support as a meta-construct with three components. While excluding mutual obligations as a characteristic of an individual's social network, Vaux operationalized Cobb's concept of network support as the Social Support Resources Scale (SS-R) (Vaux & Harrison, 1985) and combined Cobb's constructs of perceived emotional and social support as the Social Support Appraisal Scale (SS-A) (Vaux et al., 1986). Vaux developed the Social Support Behavior Scale (SS-B) to operationalize Thoits' concept of instrumental aid (Vaux, Riedel, & Stewart, 1987). Thus Vaux integrated the sociological and psychological literature in proposing that social support was comprised of social support resources (network or structure), supportive behaviours (instrumental support), and feelings or beliefs that one is supported (affective support). It is interesting to note that although his scales are conceptually distinct, some items overlap.

Of particular relevance to the present study was the assessment of the validity of the five dimensions of social support in the 45-item SS-B scale (Vaux et al., 1987). More specifically, five modes of available support were tapped for both family and friends, namely, emotional, socializing, practical assistance, financial, and advice/guidance. These five modes of support were derived from Caplan (Caplan, 1976; Caplan, Robinson, French, Caldwell, & Shinn, 1976), Gottlieb (1976) and Hirsch (1979). Participants are asked to indicate on the basis of previous experience how likely friend/family members would be to perform a specific behaviour (e.g., "Would suggest a way I

might do something" (Vaux et al., 1987)). Vaux et al. (1987) presented convincing evidence of the validity of the SS-B as a measure of five distinct modes of available supportive behaviours. The five strategies used to achieve this goal were: (a) the classification of items by judges consisting of Psychology faculty, graduate and undergraduate students; (b) an analogue simulation of five samples deficient in each mode of support by asking undergraduate students to respond to the SS-B after recording a vignette describing an individual deficient in one of the five modes of support; (c) an assessment of convergent and divergent validity with Barrera and Ainlay's (1983) ISSB using students who completed both measures; (d) an examination of the degree of support each mode provided for different problems by asking students to respond to the SS-B items with respect to the support they had received for any two recently experienced problems; and (e) confirmatory factor analysis in which each factor was specified in advance as the sum of the unit-weighted items assumed to compose it. The evidence derived for the validity of the SS-B subscales was fairly strong for all strategies, thus supporting the importance of distinguishing different modes of support. It should be stressed, however, that although Vaux et al. (1987) provided convincing data demonstrating the existence of different support dimensions, these data were derived primarily from student respondents tested in groups. Further, the content of a number of the items was either very general (e.g., "Suggested a way I might do something") or situation-specific to a youthful population (e.g., "Loaned me a car when I needed one"). The SS-B was not used in this

study, in spite of the excellent validity and reliability, because it was validated with students and faculty rather than on an elderly population, and most of the items are not applicable to the elderly.

Lopata's Dimensions of Social Support

Stemming from an entirely different type of research based on studies on kinship patterns from the sociological literature, Lopata (1978) developed measures of love, self-esteem and behaviour, which were not based on Cobb's (1976) concepts of social support, but were remarkably similar to Thoits' (1982) expansion of Kaplan et al.'s (1977) model and conceptually similar to those of Vaux et al. (1987). She defined a support system as a set of objects or actions which either the giver, the receiver or both believe are necessary or helpful in maintaining a lifestyle. Within the context of studying the contributions of extended families to the support systems of Chicago widows, Lopata (1982) combined network resources with items about what individuals in the social network do in order to provide instrumental and affective support. Each resource person named by the participant in Lopata's study was identified when he/she appeared as a giver or receiver of 52 separate support behaviours organized into four systems. Lopata delineated five dimensions of support which included service (practical assistance), social (socializing), financial assistance (included two advice items), and two dimensions of emotional support (relational sentiments and self-feeling states). Unlike Vaux et al. (1987), she did not have a separate advice/guidance section. The

economic support dimension included gifts of money, food, or clothing, or help with the payment of those objects and payment or help with the payment for rent or mortgage, and for other bills such as medical or vacation expenses. The service support dimension involved provisions of transportation or legal aid, assistance in making major decisions, care during illness, childcare, minor household repairs and help with housework, shopping, yardwork and care of the car. The social support dimension included going with people to public places such as movies, visiting, entertaining, going out to lunch or otherwise sharing the meal, going to church, engaging in sports, cards or other games, travelling out of town, celebrating holidays and engaging in other shared social activities mentioned by the respondent in answer to an open-ended question. Emotional support was differentiated into two dimensions. For the relational sentiments dimension, she asked the widow about the individual to whom she felt the closest, whom she enjoyed being with, to whom she told her problems, who comforted her, who made her feel an especially important person, who most often made her feel angry, and to whom she turned in a crisis. The second emotional dimension, self-feeling states, was elicited through asking the widow who made her feel respected, useful, independent, accepted, self-sufficient and secure. Lopata's (1978) items are similar conceptually to those of Vaux et al. (1987) and many items overlap. However, Lopata's items refer to more specific behaviours that are applicable for an exclusively elderly female population and to an adult child as the particular referent.

Type of Interview

Some studies in the literature have attempted to assess the effect of personal versus telephone interviews on the type and quality of answers received from adult and/or elderly respondents. They indicate that it is best to give the elderly personal interviews (e.g., Botwinick, 1978; Campbell and Converse, 1980; Cannell & Groves, 1979a; 1979b; Corso, 1977; Curtin, 1978; Groves, 1978; Groves & Kahn, 1976; Herzog, Rodgers, & Kulka; Miller, 1979; Miller & Miller, 1977), but there are conflicting views and contradictory evidence as to whether younger adults perform better in phone or personal interviews (e.g., Herzog et al., 1983; Jordan, Marcus, & Reeder, 1980; Rogers, 1976; Siemiatycki, 1979; Wiseman, 1972). The telephone interview mode was selected in this study for younger adults because it was the most convenient method of interviewing adult children.

In summary then, the purpose of this study was twofold: to evaluate the degree to which frequency of contact, geographic proximity and the quality of the reciprocal relationship between elderly mothers and their most supportive adult child accounted for the degree of social support obtained, and to assess the applicability of the Parental Bonding Instrument as a measure of the quality of the relationship for elderly and middle-aged adult populations.

Statement of Hypotheses

1. More frequent contact and close proximity of the most supportive adult child will be positively related to the service and financial/advice dimensions for the mother-generated data.

Corollary: The same prediction will be made for the adult child-generated data, even though the information collected from the mother and her adult child may not coincide.

2. Higher frequency of contact, higher 'care' and lower 'overprotection' scores will be positively related to the socializing, relational sentiments (emotional) and self-feeling states (emotional) dimensions of social support for the mother-generated data.

Corollary: The same prediction will be made for the adult child-generated data, although the 'care' and 'overprotection' scores refer to the amount of affection and control that the child experiences from the mother.

3. The frequency of contact and the degree of reciprocity in the the quality of the relationship between the mother and her adult child will significantly predict the socializing and emotional dimensions of social support, for both the mother-generated and child-generated data.

Method

Participants

One hundred noninstitutionalized elderly women were randomly selected by computer (SPSSX generated list) from a list of all of the noninstitutionalized residents of the City of Waterloo, Ontario who are 60 years or older.[1] Participants included English-speaking women, 65 years or older, who had at least one living child (i.e., biological, foster, adopted or any other children they raised). If the elderly women declined to participate, were not eligible for the study, could not be reached, or did not have a phone number with directory assistance, then replacements were selected randomly from the population listing using the SPSSX computer generating seed. Of the 369 women contacted by mail, 261 did not participate in the study. Of those 261, letters were returned with address unknown for 24 potential participants, 10 were not available by phone after 12 tries, 11 were deceased, and 2 were leaving on a long trip. Ninety-five women were ineligible: 7 did not speak English, 43 were under the age of 65, 20 were gravely ill and/or unable to communicate, and 25 had no living children. The 119 women who refused to participate cited such reasons as lack of interest, no time available, or did not want to answer questions about their relationships with their children. Therefore of those eligible, the participation rate was 52%.

Although 108 women were interviewed, eight cases were omitted from the data base. Seven of these mothers lived with their most supportive adult child, and one selected a mentally handicapped child who could not

be interviewed.

Of the 100 women with a mean age of 71.11 who did participate, 47% were between the ages of 65 and 69, 29% were between the ages of 70 and 74, 19% were between the ages of 75 and 80, and the remaining 5% were between the ages of 82 and 85. In terms of marital status, 53% of the women were married, 42% were widowed, and 5% were separated or divorced. Eighteen per cent had one living child, 33% had two living children, 23% had three, and 26% had four or more living children. Twelve per cent of elderly women refused to give their annual household income before taxes for the past year, and 9% did not know their income. Five per cent reported an annual income under $10000, 38% had between $10000 and $19000, 17% had between $20000 and $29000, 8% had between $30000 and $39000, 5% had between $40000 and $49000, 3% had between $50000 and $59000, and 3% had $60000 or more. Eighty-seven per cent of the women were born in Canada, 9% immigrated from another English-speaking country, and 4% immigrated from a non-English speaking country. Most of the women (mean age of 71.11) were Canadians with more than one child and who reported a moderate to high annual income.

Socioeconomic status was based on the last major occupation of the husband before retirement. One per cent were self-employed professionals (e.g., lawyers, doctors), 6% were employed professionals (e.g., professors, ministers), 8% were high level management (e.g., bank manager), 4% were semi-professionals (e.g., teachers, social workers), 1% were technicians, 29% were middle management (e.g., small business, insurance counsellor), and 3% were supervisors. Ten per cent were

foremen, 5% were in skilled clerical and sales (i.e., sales from knowledge and trained clerical), 13% were skilled trades (e.g., electricians, plumbers), 4% were farmers (i.e., owned their own farm), 10% were semi-skilled trades (e.g., stock control, cook), 10% were unskilled clerical (i.e., routine jobs such as filing), 1% were unskilled labour (e.g., construction, factory), and none were farm labourers (i.e., do not own farm). This question was not applicable for one woman who did not know what her husband did for a living as she had not seen him for years. The socioeconomic status of these women was higher than that of the elderly in other studies in the literature. In addition, there was a high percentage in the middle management category due to the large number of individuals (i.e., women or their spouses) involved in the insurance business which is a major industry in the Kitchener-Waterloo area. Both the high socioeconomic status and the high percentage of insurance personnel in the sample reflect the situation in Kitchener-Waterloo.

From the perspective of the mother, 19% of most supportive children resided less than a mile away, 15% lived one to two miles away, and 26% lived more than two miles away. Twenty-six per cent resided outside of the city (Kitchener-Waterloo) and less than one and one half hours' drive away, 9% lived outside of the city but within Ontario, and 5% lived outside of Ontario or Canada. The mean score for geographic proximity of 3.06 with a standard deviation of 1.41 indicated that children lived more than two miles away but in the city. Thus in most cases, the most supportive child lived close enough to be able to

provide support to their mothers as required.

Ninety-five per cent of the most supportive adult children had a high frequency of contact (i.e., cumulative scores of 7 to 12), and 5% had low frequency of contact (i.e., cumulative scores of 2 to 6). The mean score was 9.59 with a standard deviation of 1.65.

The frequency of contact score was then broken down into its two components, phoning and visiting. Two per cent of adult children saw their mother once a year, 14% saw her 2 to 11 times a year, 34% saw her 1 to 3 times per month, 28% saw her 1 to 2 times a week, and 22% saw her 3 to 7 times per week. One per cent of children had not phoned their mother within the last year, 4% phoned 2 to 11 times per year, 14% phoned 1 to 3 times a month, 49% phoned 1 to 2 times a week, and 32% phoned 3 to 7 times a week.

Mothers were asked when they had last seen their child and for the duration of that visit. One per cent reported seeing the child 6 to 12 months ago, 11% said 1 to 6 months ago, 20% stated 8 to 30 days ago, 42% reported 2 to 7 days ago, and 26% said today or yesterday. The duration of the visit was less than 15 minutes for 7%, 15 to 29 minutes for 9%, 1 to 2 hours for 11%, 2 to 4 hours for 16%, and more than 4 hours for 57%. In most cases, the most supportive children had high frequency of contact, had seen their mother at least once a month, had phoned their mother at least once a month, and had visited within the past month for at least one hour.

The phone number and address of the most supportive adult child were obtained from the women at the conclusion of the interview in 85

cases. Of the fifteen children not interviewed (of the 100), 5 elderly women refused to provide addresses, 5 adult children lived outside Ontario or Canada and were excluded, 3 refused to be interviewed when contacted, and 2 could not be reached before the end of the study.

Of the 100 most supportive adult children whom the mothers designated as most supportive, 43% were males, and 57% were females. Eighteen per cent of the children were an only child, 30% were the first born, 26% were second born, 16% were third born, and 10% were later born. Of the 43 males selected, 20 had no brothers, 19 (44.2%) had one brother, 1 (2.3%) had two brothers, and 3 (7.0%) had three brothers. In addition, 19 (44.2%) of these men had no sisters, 17 (39.5%) had one sister, 4 (9.3%) had two sisters, 2 (4.7%) had three sisters, and 1 (2.3%) had six sisters. Nine males were only children and 7 females had no siblings. Twenty per cent of the most supportive adult children were between the ages of 25 and 34, 57% between the ages of 35 and 44, 21% between the ages of 45 and 54, and 3% between the ages of 55 and 62. Eight per cent of the adult children were single, 83% were married, 1% were widowed, 6% were separated or divorced, 1% were living in common law, and 1% were just living together. Eighteen per cent of the adult children had no children, 13% had one child, 41% had two, 20% had three, 8% had four or more. The number of males selected as being the most supportive adult child (43) was higher than in previous studies. This may be due to the number of male children who were only children (nine) and the number of families in which there were no daughters (19).

Of the 85 children interviewed by phone, 4 (4.71%) refused to

report their total household income before taxes, 4 (4.71%) had an income of $10000 to $19000, 15 (17.65%) reported $20000 to $29000, 9 (10.59%) had $30000 to $39000, 13 (15.29%) reported $40000 to $49000, 12 (14.12%) had $50000 to $59000, and 27 (31.76%) reported $60000 or more. Thus most of the adult children were financially stable and could have helped their mother financially if required.

Procedure

All potential subjects were sent a letter (Appendix A) which outlined the purpose of the study and informed them that they would be contacted by phone (Appendix B) to arrange an interview in their home. The interviewer called within a week to screen mothers to ensure that they were 65 years or older, had at least one living adult child, and could speak English, as well as establishing possible times for an interview that ranged from one to two hours. The interviewer also called on the scheduled day in order to confirm the date and time.

Following the interview with the mother and with her permission, the adult child whom she designated as being the most supportive was initially contacted by letter (Appendix C). The letter stated that we had recently interviewed his/her mother about the way families help each other and that we required information from at least one other family member in a twenty minute telephone interview. The reason for selecting that particular adult child was not divulged. If they asked why they were selected, they were told that we required information from at least one other family member and we had chosen them. The adult child was contacted within a week of mailing the letter, to conduct the interview

then or at a more convenient time.

Cover sheets were kept for every potential elderly participant (Appendix D) to maintain a record of the dates and times called, eligibility, participation and reasons for refusal. Some women, of course, had died or moved. From these data we were able to derive a participation rate and maintain a profile of the population in terms of the estimated number of women who did not have living children, were unwell or severely disabled, or refused to participate. This record-keeping system was also used for the designated adult child (Appendix E).

All participants, both mothers and children, were told at the conclusion of the interview that a brief preliminary report detailing the major findings would be mailed within six months.

The structured interview format and related materials for mother and child are found in Appendices F, G, H and I respectively.

Measures

In the structured parent interview (Appendix F), the interviewer asked for general information such as the occupants of the house, marital status, age, country of birth, main occupation of the elderly woman and her husband (and retirement status), and the number and names of all children raised. Child fact sheets (Appendix H) were completed after the number and names of the children were elicited from the parent. One was completed for each of the living children over the age of 18. Questions asked if the child was raised by the respondent, marital status, number of children, geographic proximity, the visiting patterns (when last seen and for how long, and the usual pattern of visiting), the pattern of phone calls, if the child worked (daughters only) and how this affected the relationship, and how the parent assessed her emotional closeness to the child. The remaining questions in the interview (Appendix F) focused on the adult child that the mother perceived as being most supportive. More specifically, there were five dimensions of social support: service (9 items), financial and advice (8 items), socializing (13 items), relational sentiment (7 items) and self-feeling states (6 items) (Lopata, 1978). In addition, there were also items that dealt with the physical and mental health of the parent (i.e., type and level of seriousness), that were only relevant within the context of a larger study and were not examined here (F9-12). The 18 PBI items of which 12 were 'care' and 6 were 'overprotection' (Pettinger, 1985) were then asked in relation to the most supportive adult child (p. 13, Appendix F). A final set of questions involved the

subject's ethnic origin, education, educational level of her husband, total household income and satisfaction with financial situation (F14-15).

The post-interview form for the parent was completed privately by the interviewer soon after leaving the woman's home (Appendix G). Items concerning whether others were present at the interview and in the opinion of the interviewer, if they affected the responses, if the respondent was cooperative, if there were language or communication problems, the type of dwelling, and the mental and physical health of the subject.

In the adult child interview (Appendix I), the interviewer determined how far the child lived from his/her mother, frequency of visiting and phoning, and how close they felt to her. All questions on the five social support dimensions were also asked (I4-6). The adult children were asked to assess the overall health and physical fitness of their mother, as well as their preference for future care for her if she became an invalid (not of interest in the present study). Questions concerning the relationship of the adult children with their mother (PBI) were also asked. The adult children were also asked about their employment status and their income at the conclusion of the 20 minute phone interview.

I. Structured Interview Format for Elderly Women

The variables dealing with the elderly mothers are outlined first and then those of her most supportive adult child are designated. The three types of variables that are described are descriptor, predictor and criterion variables. Descriptor variables provide demographic information so that profiles can be developed for the elderly women and their adult children. Predictor variables are also called independent, treatment or stimulus variables, as they affect the criterion variable (Hopkins & Glass, 1978). The criterion variable is hypothesized to be dependent upon the predictor variable, and is thus known as the outcome, response or dependent variable (Hopkins & Glass, 1978). Both predictor (X) and criterion (Y) variables are entered into multiple regression equations.

A. Descriptor Variables:

Age (F1)
Marital Status (F1)
Place of Birth (F1)
Ethnic Origin (F14)
Socio-economic status (Husband's occupation before retirement)(F3)
Major occupation during lifetime (F2)
Educational level (F14)
Current income level (F15)
Income adequacy (F15)
Number, age, geographic proximity of living children including all children raised (F4, F4 and H1 respectively)
Frequency of contact (visiting and phoning) with each adult child (H2 and H3 respectively)
Sex of adult child designated by mother as most supportive during the past year (H1)

The structured interview format for the elderly women is comprised of the information on the parent interview form (Appendix F). The

descriptor variables of age, marital status, place of birth, ethnic origin, socioeconomic status, educational level and income were employed in the same format that Marshall, Rosenthal and Synge (1980) used in their study on family and social relations among Hamilton residents. Further, the Child Fact Sheet (Appendix H) for each living child in which geographic proximity, frequency of contact and perceived closeness of the relationship are categorized, is also identical to the one used in the Marshall et al. (1980) study so that direct comparisons between the two samples could be made.

B. Predictor Variables:

Characteristics of most supportive adult child:

(1) frequency of contact (H2-3)
(2) geographic proximity (H1)
(3) quality of the relationship as measured by the 'care' and 'overprotection' dimensions of the Parental Bonding Instrument (PBI) from the mother's perspective
Item examples are "Alice is affectionate to me" ('care') and "Alice tries to control everything I do" ('overprotection') (F13)

The quality of the relationship, measured by the 'care' and 'overprotection' dimensions of the Parental Bonding Instrument (PBI), is evaluated from the mother's perspective. Pettinger's (1985) modification of the PBI developed by Parker at al. (1979) consists of 12 items constituting the 'care' dimension and 6 items comprising the 'overprotection' dimension. The revisions to the original PBI are in Appendix J. The items are ranked on a four-point scale from (1) "very like my relationship" to (4) "very unlike my relationship."

C. Criterion Variables:

Five dimensions of social support:

(1) service, e.g., household chores (F5)
(2) financial and advice, e.g., assist with bills, help with decisions (F6)
(3) socializing, e.g., get together for lunch (F7)
(4) relational sentiments (emotional), e.g., makes me feel important (F8)
(5) self-feeling (emotional), e.g., makes me feel secure (F8)

The criterion variables are modelled after the five dimensions of social support proposed by Lopata (1978). Lopata defined social support as actions in maintaining a person's lifestyle, and thus delineated service, economic, social and two emotional dimensions of support (relational sentiments and self-feeling states). The items are assessed from the mother's point of view for the child she views as being the most supportive. Since her study of Chicago widows encompassed a wide range of ages, only those items appropriate to an exclusively elderly population were selected (e.g., babysitting replaced by personal care). Additional items were drawn from several sources, including Marshall et al. (1980), Vaux et al. (1987), and Lane (personal communication, June 9, 1986). The revisions and additions to Lopata's scale can be found in Appendix K. Only four of the nine items comprising the dimension of service were from Lopata, three items were from Marshall et al. (1980) and two were from Vaux et al. (1987). The eight items constituting the economic dimension included Lopata's four items related to financial assistance, one item from Lopata's service dimension, and three items concerned with providing advice which were extracted from Vaux et al. (1987) and then adapted in their specificity to an older female

population. For example, the item "Helped me decide what to do" was revised to "Help with decisions about moving." Since the extent of social interactions with a woman's most supportive adult child were of major interest, the dimension tapping social activities was extended to 13 items. Six were from Lopata's social dimension and the remainder were generated by Dr. Lane in consultation with J. Synge (personal communication, June 9, 1986). The relational sentiments and self-feeling dimensions, consisting of seven and six items respectively, are Lopata's complete item set for the emotional dimensions.

II. Structured Interview Format for Adult Child

A. Descriptor Variables:

Age (H1)
Employment status (I9)
Income level (I9)

The descriptor variable of employment status is comprised of four categories for men and five for women, including homemaker. The income level is assessed by providing six categories of total household income ranges.

B. Predictor Variables:

Frequency of contact with mother (I2-3)
Geographic proximity to mother (I1)
Quality of the relationship with mother from the perspective of the adult child
Item examples are "Mother is affectionate to me" ('care') and "Mother tries to control everything I do" ('overprotection') (I8)

The participants were asked the distance from their mother's home,

the frequency of visiting and phoning, the closeness of the relationship and the 18 items of the modified Parental Bonding Instrument (PBI) from the perspective of their mother's behavior to them, by using the same categories for responding as those presented to the mother.

C. Criterion Variables:

The five dimensions of social support outlined above but from the adult child's perspective. (I4-6)

All items comprising the five dimensions of social support were presented. Participants were asked to write down the categories at the appropriate points in the telephone interview, in order to facilitate more accurate responding for both the PBI and the social support items.

Results

The results are presented in three sections: the mother-generated data, the adult child-generated data, and the reciprocity and discrepancy data between the mother and adult child. The alpha level was set at .05. It should be noted that low numbers represent high degrees of social support, close geographic proximity, and high 'overprotection'. This necessitated reversing the scores for the PBI item numbers 1, 6, 8, 10, 11, 13, 14, and 17, as well as the frequency of contact items. High numbers represent high frequency of contact and high 'care'.

I. Mother-Generated Data

The 18 items of the PBI were factor analyzed using the principal components method (PA2 of SPSS) (Nie, Hull, Jenkins, Steinbrenner, and Bent, 1975) with 100 cases using the data from the elderly women. Table 1 shows the intercorrelations among the 18 items, and Table 2 the results of the factor analysis. The first factor ('care' dimension) accounted for 15.1% of the variance, whereas the second factor ('overprotection' dimension) accounted for 10.9% of the variance. The factor weightings for the original 'care' items ranged from .11 to .56. The factor weightings for the original 'overprotection' items ranged from .06 to .72. For the regression analyses, items were retained for each dimension if they had a minimum factor weighting of .40 on one factor and a maximum weighting of .30 on the other factor. Consequently, the 'care' dimension was comprised of statement numbers

Table 1

Intercorrelations of 18 PBI Items for 100 Elderly Women

	PBI1	PBI2	PBI3	PBI4	PBI5	PBI6	PBI7	PBI8	PBI9
PBI1	1.00000	-.27484	.00621	.31171	.15753	-.03703	.31406	.10177	.20048
PBI2	-.27484	1.00000	-.18907	-.03113	.01652	.26389	.00895	-.13516	-.12055
PBI3	.00621	-.18907	1.00000	-.07567	.26235	.02423	-.09606	.12895	.34093
PBI4	.31171	-.03113	-.07567	1.00000	.23611	.12990	.22040	-.06214	.01920
PBI5	.15753	.01652	.26235	.23611	1.00000	-.07689	-.01282	.37925	.31043
PBI6	-.03703	.26389	.02423	.12990	-.07689	1.00000	.00749	-.07439	.01121
PBI7	.31406	.00895	-.09606	.22040	-.01282	.00749	1.00000	-.00749	-.04235
PBI8	.10177	-.13516	.12895	-.06214	.37925	-.07439	-.00749	1.00000	.23396
PBI9	.20048	-.12055	.34093	.01920	.31043	.01121	-.04235	.23396	1.00000
PBI10	.06094	-.08207	.02357	.10726	.16924	.00351	-.07380	.13305	.01137
PBI11	-.00967	-.00949	.35785	-.02294	.13528	-.10387	-.06625	.26926	.07297
PBI12	-.10699	.34493	.09041	.02350	.27060	.19100	.07440	.02915	.08992
PBI13	.07492	-.09052	.21488	-.01745	.14811	-.05951	.03010	.19476	.10133
PBI14	.13213	.03051	.07195	.09039	-.04709	.11726	.01331	.16193	.06142
PBI15	.08370	-.01763	.10528	-.04014	.11200	-.04241	-.02052	.13440	.14116
PBI16	-.06660	.09914	.23428	-.04507	.09720	-.03426	.06521	-.05890	.23031
PBI17	-.02790	.10551	-.07783	-.06058	-.02742	.25906	.23970	-.12769	-.07874
PBI18	.29421	-.25079	.23817	.08934	.25449	-.15542	.04566	.25356	.14260

(table continued)

Table 1 Continued

	FBII0	FBIII	FBII2	FBII3	FBII4	FBII5	FBII6	FBII7	FBII8
FBII	.06094	-.00967	-.10699	.07492	.12213	.08370	-.06660	-.02790	.29421
FBI2	-.08207	-.00949	.34493	-.09052	.03051	-.01763	.09914	.10551	-.25079
FBI3	.02357	.25705	.09041	.21480	.07195	.10520	.23420	-.07703	.23017
FBI4	.10726	-.02294	.02350	-.01745	.09839	-.04014	-.04507	-.06050	.08934
FBI5	.16924	.13528	.27060	.14011	-.04709	.11200	.09720	-.02742	.25449
FBI6	.00351	-.10387	.19108	-.05951	.11726	-.04341	-.03426	.25906	-.15542
FBI7	-.07380	-.06625	.07468	.03010	.01331	-.02052	.06521	.23970	.04566
FBI8	.13305	.26926	.02915	.19476	.16193	.13460	-.05590	-.12769	.25356
FBI9	.01137	.07297	.08992	.10133	.06142	.16116	.23031	-.07074	.14260
FBII0	1.00000	.03604	-.15342	.13170	.01202	-.03434	-.05435	.15045	.03951
FBIII	.03604	1.00000	-.01525	.34020	-.03763	-.03262	-.05140	-.00366	.20304
FBII2	-.15342	-.01525	1.00000	-.05394	-.08599	-.04941	.33263	.13523	-.10130
FBII3	.13170	.34020	-.05394	1.00000	.19873	-.05927	.04340	.01609	.30402
FBII4	.01202	.03763	-.08599	.19873	1.00000	.17042	-.03419	.12577	.12813
FBII5	-.03434	-.03262	-.04941	-.05927	.17042	1.00000	.21734	-.02591	.02248
FBII6	-.05435	-.05140	.33263	.04348	-.03419	.21734	1.00000	.27590	.00987
FBII7	.15045	-.00366	.13523	.01689	.12577	-.02591	.27590	1.00000	-.00162
FBII8	.03951	.20304	-.10130	.30402	.12813	.02248	.00987	-.00162	1.00000

DETERMINANT OF CORRELATION MATRIX = .03886130 (.38861303E-01)

Table 2

Principle Components Analysis of the 18 PBI Items from the Mother's Perspective

Scale	Variables	Varimax Rotated Factor Matrix	
		Factor I	Factor II
	1. Is affectionate to me	303	- 195
P	2. Is overprotective of me	- 266	463
C	3. Does not seem to understand what I need or want	490	115
	4. Does not help me as much as I need	112	- 014
C	5. Does not talk with me very much	563	214
	6. Likes me to make my own decisions	- 139	287
	7. Invades my privacy	016	055
C	8. Enjoys talking things over with me	493	- 070
C	9. Seems emotionally cold to me	477	144
	10. Frequently smiles at me	139	- 102
	11. Appears to understand my problems and worries	363	- 091
P	12. Tends to baby me	075	719
C	13. Can make me feel better when I'm upset	399	- 097
	14. Speaks to me in a warm and friendly voice	147	- 032
	15. Makes me feel I am not wanted	174	068
P	16. Tries to control everything I do	190	450
	17. Lets me decide things for myself	- 094	280
C	18. Does not praise me	560	- 209

Per cent variance = 15.1% 'care'
10.9% 'overprotection'

Note. Decimals omitted; C represents 'care' items retained on the 'care' scale; P represents 'overprotection' items retained on the 'overprotection' scale.

3, 5, 8, 9, 13, and 18, and the 'overprotection' dimension was composed of statement numbers 2, 12, and 16. The six 'care' items which had factor weightings more than .40 on Factor 1 were not meaningfully weighted on Factor 2. Only three 'overprotection' items had factor weightings more than .40. The total 'care' score was calculated by summing the raw scores obtained on each of these six statements. The total 'overprotection' score was derived by the summation of the three statements that loaded highly on the second factor.

Total frequency of contact was a sum of the frequency of visiting and phoning as measured by two items (see items 8 & 9 in Appendix H). With respect to the five dimensions of social support, proportional scores were derived for the service and financial/advice scales due to the large number of items for which most participants either did not require help, or received assistance from others, namely, a spouse, another child/children, relatives or friends, or hired help. Items for which most participants did not require help or received help from another source were not included in the mean total score. More specifically, for these two dimensions, scores from all applicable items were summed and then divided by the number of items. The total scores for the socializing and two emotional dimensions of social support were derived by summing the raw scores. Item 13 of the socializing scale was not included because it was used to gather information about other social activities that elderly women did with their children for use in a future study. Item 6 of the relational sentiments scale was reversed as it was worded negatively and the rest of the items on the scale were

worded positively.

The means and standard deviations for the predictor and criterion variables are in Table 3 and the correlation matrix in Table 4. The negative correlation of $r=-.55$ between frequency of contact and geographic proximity indicates that the closer the adult child lives to the mother, the more frequent is the contact. Contrary to findings of Parker et al. (1979) and Pettinger (1985), 'care' and 'overprotection' were not significantly correlated ($r=-.07$).

To test hypotheses one and two, five separate regression analyses were conducted using the five dimensions of social support as the criterion variables. In order to evaluate the first group of hypotheses, frequency of contact and geographic proximity of the most supportive adult child were entered as the predictor variables in two regression equations. Neither of these predictor variables significantly predicted the service dimension of social support. Similarly, they did not significantly predict the financial/advice dimension of social support. The results of these analyses are presented in Table 5.

The results of the regression analyses for the second group of hypotheses in which the extent of socializing and emotional support were the criterion variables are presented in Table 6. Frequency of contact, 'care' and 'overprotection' significantly predicted the degree of socializing, $F(3,96)=18.59$, $p<.001$, accounting for 36.7% of the variance. The most supportive adult child who visited and phoned frequently, and exhibited both high 'care' and high 'overprotection',

Table 3

Means and Standard Deviations for Predictor and Criterion Variables for Mother Data (n=100)

Variable	No. of Items	Scale Mean	Prop Mean	Standard Deviation	Label
Service	9	NA	3.04	1.396	occasionally
Financial/Advice	8	NA	3.65	1.216	very occasionally
Socializing	12	36.79	3.07	6.708	occasionally
Relational Sentiments	7	9.39	1.34	2.482	strongly agree
Self-Feeling States	6	7.20	1.20	2.234	strongly agree
Care	5	3.63		.415	very high care
Overprotection	3	3.42		.604	low control
Geographic Proximity	1	3.06		1.413	2-KW
Frequency of Contact	2	9.59		1.646	1-2 times a week

Note: NA = Impossible to calculate as these are proportional scores; Prop = Proportional scores (i.e., calculated as some items are not applicable for all subjects); 2-KW = more than 2 miles but within Kitchener-Waterloo.

Table 4

Pearson Correlations of Predictor and Criterion Variables for Regression Analysis of Mother-Generated Data

	FGEOG	FFREQ	FCARE	FOVER	FSS	FSF	FSSS	FSER	FSES
FGEOG	1.000 P=****								
FFREQ	-.550 P=.001	1.000 P=****							
FCARE	.115 P=.126	.150 P=.068	1.000 P=****						
FOVER	.038 P=.356	-.084 P=.203	-.074 P=.232	1.000 P=****					
FSS	-.093 P=.180	-.084 P=.204	-.182 P=.035	-.033 P=.371	1.000 P=****				
FSF	-.007 P=.473	.062 P=.270	.039 P=.352	.205 P=.021	.246 P=.007	1.000 P=****			
FSSS	.182 P=.035	-.551 P=.001	-.262 P=.004	.231 P=.010	.106 P=.147	-.074 P=.232	1.000 P=****		
FSER	-.280 P=.002	-.022 P=.413	-.371 P=.001	.088 P=.191	.113 P=.131	-.028 P=.390	.191 P=.029	1.000 P=****	
FSES	-.138 P=.085	-.156 P=.061	-.380 P=.001	.147 P=.072	-.016 P=.439	.162 P=.054	.275 P=.003	.388 P=.001	1.000 P=****

Note. n=100 for mother data

Table 5

Regression Analysis of Mother-Generated Data for Service and Financial/Advice Support

Criterion Variable: Service (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.171	.106	-1.615	.110
Geographic Proximity	-.206	.124	-1.663	.100

$F(2,97)=1.73$, $p \leq .18$ Per cent Variance = 3.5%

Criterion Variable: Financial/Advice (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	.062	.090	.688	.493
Geographic Proximity	.033	.105	.320	.749

$F(2,97)=.24$, $p \leq .79$ Per cent Variance = 0.5%

Table 6

Regression Analysis of Mother-Generated Data for Socializing, Relational Sentiments, and Self-Feeling States Support

Criterion Variable: Socializing (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-2.082	.336	-6.204	.001 ***
Care	-2.787	1.329	-2.096	.039 *
Overprotection	1.953	.907	2.153	.034 *

$F(3,96)=18.59$, $p<.001$ Per cent Variance = 36.7%

Criterion Variable: Relational Sentiments (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	.059	.144	.406	.686
Care	-2.227	.573	-3.890	.001 ***
Overprotection	.263	.391	.673	.503

$F(3,96)=5.34$, $p<.002$ Per cent Variance = 14.3%

(table continued)

Table 6 Continued

Criterion Variable: Self-Feeling States (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.126	.128	-.985	.327
Care	-1.922	.508	-3.783	.001 ***
Overprotection	.418	.347	1.207	.230

$F(3,96)=6.40$, $p \leq .001$ Per cent Variance = 16.7%

* $p \leq .05$
*** $p \leq .001$

engaged in more socializing with the mother. Parker et al. (1979) refers to this type of parental bonding as affectionate-constraint (see Figure 1). High 'care', but not frequency of contact or 'overprotection', was a significant predictor of high relational sentiments, $F(3,96)=5.34$, $p<.002$, accounting for 14.3% of the variance. High 'care' was also the only significant predictor of self-feeling states support, yielding an $F(3,96)=6.40$, $p<.001$, accounting for 16.7% of the variance.

II. Child-Generated Data

It should be borne in mind that the 'care' and 'overprotection' scores here reflect the amount of affection and control that the child obtains from the mother. The scores used in these analyses were calculated in the same way as outlined for mother-generated data.

Factor analysis of the PBI performed on the child's data with the number of factors to be extracted limited to two yielded a factor structure consistent with the labels 'care' and 'overprotection'. Table 7 shows the intercorrelations among the 18 items, and Table 8 the results of the factor analysis. The first factor ('care' dimension) accounted for 26.6% of the variance, and the second factor ('overprotection' dimension) accounted for 14.7% of the variance. The factor weightings of the original 'care' items ranged from .04 to .79. The factor weightings of the original 'overprotection' items ranged from .30 to .73. The items with the appropriate factor weightings were 1, 5, 9, 10, 11, 13, 14, and 18 for 'care', and 2, 7, 12, and 16 for

Table 7

Intercorrelations of 18 PBI Items for 85 Adult Children

	CPBI1	CPBI2	CPBI3	CPBI4	CPBI5	CPBI6	CPBI7	CPBI8	CPBI9
CPBI1	1.00000	-.27149	.17719	.10133	.31494	.21849	.10462	.20863	.53653
CPBI2	-.27149	1.00000	.10284	-.09425	-.16865	.20260	.33889	-.17574	-.14275
CPBI3	.17719	.10284	1.00000	.22683	.15980	.06601	.38808	.29387	.26731
CPBI4	.10133	-.09425	.22683	1.00000	.11978	.10728	-.04092	.06089	.15026
CPBI5	.31494	-.16865	.15980	.11978	1.00000	-.05750	.15258	.23228	.39446
CPBI6	.21849	.20260	.06601	.10728	-.05750	1.00000	.28019	-.03495	.22415
CPBI7	.10462	.33889	.38808	-.04092	.15258	.28019	1.00000	.17195	.13921
CPBI8	.20863	-.17574	.29387	.06089	.23228	-.03495	.17195	1.00000	.14574
CPBI9	.53653	-.14275	.26731	.15026	.39446	.22415	.13921	.14574	1.00000
CPBI10	.49359	-.20417	.18191	.09952	.15996	.20760	-.05435	.12748	.48194
CPBI11	.29347	-.05129	.38094	.23294	.22292	.07485	.31910	.20533	.28927
CPBI12	.29058	.57754	.27147	-.23586	-.17177	.09331	.33823	-.11672	-.01415
CPBI13	.43153	-.12375	.31019	.09416	.08791	.23328	.38266	.44710	.33837
CPBI14	.59284	-.10769	.25563	.21533	.16960	.41972	.22438	.20466	.57313
CPBI15	-.02322	.12474	.14980	-.05342	-.06729	-.10763	.29534	.05665	-.04900
CPBI16	.22108	.23055	.46709	.09357	.09608	.33598	.51927	-.03922	.23230
CPBI17	.23543	.11464	.15955	.10008	.22348	.32531	.30755	-.02914	.24124
CPBI18	.40701	-.08635	.19418	.04174	.30924	.24428	.35990	.13408	.51444

(table continued)

Table 7 Continued

	CPBI10	CPBI11	CPBI12	CPBI13	CPBI14	CPBI15	CPBI16	CPBI17	CPBI18
CPBI1	.49359	.29347	-.29058	.43153	.59284	-.03322	.22100	.23643	.60701
CPBI2	-.20417	-.05129	.57754	-.12375	-.10769	.13674	.23056	.11464	-.00633
CPBI3	.18191	.38094	.27147	.31019	.25563	.14980	.46709	.15955	.19418
CPBI4	.09952	.23294	-.23586	.09616	.21533	-.05342	.09357	.10008	.04174
CPBI5	.15996	.22292	-.17177	.08791	.16968	-.06729	.09608	.22348	.30924
CPBI6	.20760	.07485	.09321	.23328	.41972	-.10763	.33598	.32531	.24420
CPBI7	-.05435	.31910	.38823	.38286	.22438	.29534	.51927	.30755	.35990
CPBI8	.12748	.20533	-.11672	.44710	.20466	.05665	-.03922	-.02914	.13600
CPBI9	.48194	.28927	-.01415	.33837	.57513	-.06980	.23230	.24126	.51446
CPBI10	1.00000	.33922	-.01853	.33308	.49923	-.09139	.24727	.16497	.34873
CPBI11	.33922	1.00000	-.05783	.35302	.28071	.20265	.30866	.27377	.26868
CPBI12	-.01853	-.05783	1.00000	.03050	-.13907	.20275	.31533	.09490	-.09352
CPBI13	.33308	.35302	.03050	1.00000	.49586	.03148	.23018	.22751	.45059
CPBI14	.49923	.28071	-.13907	.49586	1.00000	.03755	.18704	.28602	.58732
CPBI15	-.09139	.20265	.20275	.03148	.03755	1.00000	.26839	.15479	.01155
CPBI16	.24727	.30866	.31533	.23018	.18704	.26839	1.00000	.23524	.31381
CPBI17	.16497	.27377	.09490	.22751	.28602	.15479	.23524	1.00000	.20113
CPBI18	.34873	.26868	-.09352	.45059	.58732	.01155	.31381	.20113	1.00000

DETERMINANT OF CORRELATION MATRIX = .00102841(.10283550E-02)

Table 8

Principle Components Analysis of the 18 PBI Items from the Child's Perspective

Scale	Variables	Varimax Rotated Factor Matrix	
		Factor I	Factor II
C	1. Is affectionate to me	792	- 053
P	2. Is overprotective of me	- 334	584
	3. Does not seem to understand what I need or want	316	456
	4. Does not help me as much as I need	243	- 035
C	5. Does not talk with me very much	398	- 023
	6. Likes me to make my own decisions	281	299
P	7. Invades my privacy	212	727
	8. Enjoys talking things over with me	339	010
C	9. Seems emotionally cold to me	686	092
C	10. Frequently smiles at me	575	004
C	11. Appears to understand my problems and worries	434	263
P	12. Tends to baby me	- 286	648
C	13. Can make me feel better when I'm upset	581	242
C	14. Speaks to me in a warm and friendly voice	767	125
	15. Makes me feel I am not wanted	- 039	338
P	16. Tries to control everything I do	269	635
	17. Lets me decide things for myself	301	319
C	18. Does not praise me	677	180

Per cent variance = 26.6% 'care'
14.7% 'overprotection'

Note. Decimals omitted; C represents 'care' items retained on the 'care' scale; P represents 'overprotection' items retained on the 'overprotection' scale.

'overprotection'. It should be noted that although the factor structure was similar for mother and child data, the actual items did not always correspond.

The means and standard deviations of the predictor and criterion variables are presented in Table 9, and the relevant correlation matrix in Table 10. Again there was a significant negative correlation of $r=-.63$ between geographic proximity and frequency of contact. 'Care' and 'overprotection' were not correlated ($r=.02$).

To test for the corollaries of the first two groups of hypotheses, five separate regressions were conducted on the data from the adult child, using the same five dimensions of social support as the criterion variables. In order to evaluate the corollary for the first hypothesis, frequency of contact and geographic proximity of the most supportive adult child were entered into the first two regression equations. The results of the multiple regression analysis of service and financial/advice support are in Table 11. High frequency of contact, but not geographic proximity, significantly predicted more service support, $F(2,82)=8.87$, $p<.001$, accounting for 17.8% of the variance. Frequency of contact and geographic proximity of the most supportive adult child did not significantly predict financial/advice support.

In order to evaluate the corollary for the second group of hypotheses, frequency of contact, 'care', and 'overprotection' of the most supportive child were entered as predictor variables into three regression equations with the socializing, relational sentiments and self-feeling states dimensions of social support as the three criterion

Table 9

Means and Standard Deviations for Predictor and Criterion Variables for Child Data (n=85)

Variable	No. of Items	Scale Mean	Prop Mean	Standard Deviation	Label
Service	9	NA	3.65	.798	very occasionally
Financial/Advice	8	NA	3.50	.965	very occasionally
Socializing	12	32.93	2.74	7.456	occasionally
Relational Sentiments	7	10.81	1.55	2.860	mildly agree
Self-Feeling States	6	9.38	1.56	3.519	mildly agree
Care	7	3.52		.484	very high care
Overprotection	4	3.14		.695	low control
Geographic Proximity	1	2.95		1.262	2-KW
Frequency of Contact	2	9.88		1.507	1-2 times a week

Note. NA = Impossible to calculate as these are proportional scores; Prop = Proportional scores (i.e., calculated as some items are not applicable for subjects); 2-KW = more than 2 miles but within Kitchener-Waterloo.

Table 10

Pearson Correlations of Predictor and Criterion Variables for Regression Analysis of Child-Generated Data

	CGEOG	CFREQ	ACARE	AOVER	ASS	ASF	ASSS	ASER	ASES
CGEOG	1.000 P=****								
CFREQ	-.629 P=.001	1.000 P=****							
ACARE	.050 P=.323	.093 P=.198	1.000 P=****						
AOVER	.052 P=.320	-.010 P=.463	.024 P=.413	1.000 P=****					
ASS	.278 P=.005	-.421 P=.001	-.167 P=.063	-.099 P=.184	1.000 P=****				
ASF	.103 P=.173	-.204 P=.031	-.259 P=.008	-.116 P=.144	.450 P=.001	1.000 P=****			
ASSS	.052 P=.320	-.314 P=.002	-.436 P=.001	-.032 P=.386	.492 P=.001	.351 P=.001	1.000 P=****		
ASER	.072 P=.402	-.304 P=.002	-.548 P=.001	-.083 P=.225	.164 P=.067	.173 P=.057	.448 P=.001	1.000 P=****	
ASES	.157 P=.076	-.283 P=.004	-.319 P=.001	-.056 P=.304	.195 P=.037	.145 P=.093	.425 P=.001	.408 P=.001	1.000 P=****

Note. n=85 for child data

Table 11

Regression Analysis of Child-Generated Data for Service and Financial/Advice Support

Criterion Variable: Service (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.216	.068	-3.164	.002 **
Geographic Proximity	.014	.081	.173	.863

$F(2,82)=8.87$, $p \leq .001$ Per cent Variance = 17.8%

Criterion Variable: Financial/Advice (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.147	.089	-1.653	.102
Geographic Proximity	-.031	.106	-.295	.768

$F(2,82)=1.82$, $p \leq .17$ Per cent Variance = 4.3%

** $p \leq .01$

Table 12

Regression Analysis of Child-Generated Data for Socializing, Relational Sentiments, and Self-Feeling States Support

Criterion Variable: Socializing (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-1.367	.473	-2.890	.005 **
Care	-6.302	1.473	-4.279	.001 ***
Overprotection	-.267	1.022	-.262	.794

$F(3,81)=9.78$, $p<.001$ Per cent Variance = 26.6%

Criterion Variable: Relational Sentiments (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.485	.168	-2.884	.005 **
Care	-3.087	.523	-5.899	.001 ***
Overprotection	-.300	.363	-.826	.411

$F(3,81)=15.87$, $p<.001$ Per cent Variance = 37.0%

(table continued)

Table 12 Continued

Criterion Variable: Self-Feeling States (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Frequency of Contact	-.599	.237	-2.521	.014 **
Care	-2.138	.739	-2.892	.005 **
Overprotection	-.263	.513	-.512	.610

$F(3,81)=5.13$, $p \leq .002$ Per cent Variance = 17.0%

** $p \leq .01$
*** $p \leq .001$

variables. Results of regression analyses for these hypotheses in which the extent of socializing and emotional support were the criterion variables are presented in Table 12. Frequency of contact and 'care', but not 'overprotection', were significant predictor variables for all three dimensions of social support. More specifically, a high frequency of contact with the mother and experiencing a high level of maternal care predicted more socializing, $F(3,81)=9.78$, $p<.001$, accounting for 26.6% of the variance. A high frequency of contact with the mother and experiencing a high level of maternal care predicted more relational sentiments support, $F(3,81)=15.87$, $p<.001$, accounting for 37.0% of the variance. A high frequency of contact with the mother and experiencing a high level of maternal care predicted more self-feeling states support, $F(3,81)=5.13$, $p<.002$, accounting for 17.0% of the variance.

III. Reciprocity and Discrepancy

The third group of hypotheses stated that frequency of contact and the degree of reciprocity in the quality of the relationship between the mother and her adult child would significantly predict the socializing and two emotional dimensions of social support. In order to statistically assess whether reciprocity makes a significant contribution, the squared difference scores (i.e., quadratic component) between the mother and child for both 'care' and 'overprotection' must be entered after the difference scores (i.e., linear component) in a hierarchical regression equation. Hierarchical regression analyses were conducted for the three criterion variables in which frequency of

contact was entered first; the difference scores (i.e., linear component) second, and the reciprocity scores (i.e, quadratic component) last for both mother and child data.

The discrepancy scores between the mother's perception of how affectionate and controlling that she perceived the child was of her, as opposed to the maternal care and control that the child was experiencing, were calculated as the difference scores for both 'care' and 'overprotection'. More specifically, in order to compare the discrepancy and reciprocity between the mother's and child's 'care' and 'overprotection' scores, only those items which had factor weightings of .40 or more for both samples were used. The common items constituting the 'care' subscale were 5, 9 13 and 18, and those comprising the 'overprotection' subscale were 2, 12, and 16. Because the factor weightings derived for the mother's data were based on 100 elderly women and those for the children's data were based on only 85, the factor analysis was repeated on the mother data for the 85 mothers whose children participated in the study. The factor weightings of items 13 and 16 were insufficient for inclusion; thus only items 5, 9 and 18 were used to evaluate discrepancy and reciprocity in 'care', and items 2 and 12 to evaluate discrepancy and reciprocity in 'overprotection'. For both 'care' and 'overprotection', the child's mean score was subtracted from the mother's mean score. Low discrepancy scores indicated a mutually caring/uncaring and overprotective/independent relationship, whereas high scores signify a lack of reciprocity. More specifically, a positive 'care' discrepancy score suggests that the mother obtains more

affection than she gives her child in return. On the other hand, a positive 'overprotection' discrepancy score indicates that the mother exerts more control over her child than she experiences. The discrepancy 'care' score had a range of -4 to +10 with a mean of 5.4 and a standard deviation of 2.739 (based on three items). The discrepancy 'overprotection' score had a range of -5 to +6 with a mean of .918 and a standard deviation of 2.546 (based on two items). The mean 'care' and 'overprotection' scores for the reduced scales are shown in Appendix L.

These discrepancy scores as well as the squares of the difference scores (i.e, reciprocity) for both 'care' and 'overprotection' were tested for linear and curvilinear relationships in socializing, relational sentiments and self-feeling states support. If, for example, a simple self-interest factor were in operation, then only the linear term for 'care' would be expected to be significant and the beta coefficient would be positive for 'care'. In this case, the mother experiencing more affection than her child would receive more socializing support. If, on the other hand, the reciprocity theory prediction were correct, then the linear term would not be significant and the quadratic term would account for a significant increase in explained variance. A positive beta coefficient would indicate that the greater the departure from equitable exchange of affection, the greater the degree of social support.

A. Mother-Generated Data

The table for the hierarchical multiple regression of social support of frequency of contact, discrepancy of 'care' and 'overprotection', and reciprocity of 'care' and 'overprotection' with the mother data is presented in Table 13A. The hierarchical regression equation for the three dimensions of socioemotional support revealed that the quadratic term (i.e., reciprocity) was not significant, and the 'overprotection' part of the linear component made a significant contribution for all three criterion variables. The beta coefficient for 'overprotection' in all instances reflected that mothers experiencing more autonomy than their children obtained more social support as can be seen in Table 13A. Frequency of contact and discrepancy of 'overprotection' were significant for socializing, the overall $F(5,79)=10.36$, $p \leq .001$, accounting for 39.6% of the variance. Discrepancy of 'overprotection' was significant for relational sentiments, the overall $F(5,79)=2.78$, $p \leq .05$, accounting for 14.4% of the variance. Frequency of contact and discrepancy of 'overprotection' were significant for self-feeling states, the overall $F(5,79)=2.85$, $p \leq .02$, accounting for 15.3% of the variance. Therefore discrepancy (i.e., linear reciprocity model) was a better fit than reciprocity (i.e., quadratic or curvilinear model) for mother-generated data, and mothers with autonomy had more socioemotional support.

It should be noted however, that multicollinearity was a potential problem for 'overprotection' in that the linear and quadratic components

Table 13A

Hierarchical Multiple Regression Analysis of Mother-Generated Data for Socializing, Relational Sentiments, Self-feeling States, Frequency of Contact, Discrepancy and Reciprocity

Criterion Variable: Socializing (Mother's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.537	-2.238 ***	.289	.289
Linear Component:				
Dcare		-1.274		
	.616		.090	.379
Dover		2.161 **		
Quadratic Component:				
Sq. Dcare		1.609		
	.629		.017	.396
Sq. Dover		-.236		

$F(5,79)=10.36$, $p \leq .001$ Per cent Variance = 39.6%

Criterion Variable: Relational Sentiments (Mother's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.112	-.153	.013	.013
Linear Component:				
Dcare		-.132		
	.282		.066	.079
Dover		.626 *		
Quadratic Component:				
Sq. Dcare		1.603		
	.355		.047	.126
Sq. Dover		-.116		

$F(5,79)=2.78$, $p \leq .05$ Per cent Variance = 12.6%

Table 13A Continued

Criterion Variable: Self-Feeling States (Mother's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.236	-.314 *	.056	.056
Linear Component:				
Dcare	.375	-.519	.085	.141
Dover		.619 *		
Quadratic Component:				
Sq. Dcare	.391	.134	.012	.153
Sq. Dover		.126		

$F(5,79)=2.85$, $p<.02$ Per cent Variance = 15.3%

* $p<.05$
** $p<.01$
*** $p<.001$

Note. Frequency of contact was entered in the first step, the linear reciprocity variables were entered in the second step, and the quadratic variables were entered in the third step of a hierarchical multiple regression. The figures shown for the overall beta coefficient and the overall model (i.e., F) are from the final equation with all variables in the equation. The figures shown for r, R-Sq. Increment, and the Overall R-Squared are for each individual step.
Discrepancy of care is calculated by subtracting the sum of items 5, 9 and 18 from the child's perspective from the sum of items 5, 9 and 18 from the mother's perspective;
Discrepancy of overprotection is calculated by subtracting the sum of items 2 and 12 from the child's perspective from the sum of items 2 and 12 from the mother's perspective.

were significantly correlated (r=.50, p<.001). Because discrepancy of 'overprotection' was entered first in the hierarchical regression, the linear term may have utilized most the variance, with none remaining for the quadratic term. Consequently, the order of entry of the linear and quadratic term were reversed. The results, however, revealed that discrepancy of 'overprotection' was a significant predictor of socializing, relational sentiments and self-feeling states support from the mother's perspective, regardless of the order of entry. Therefore from the mother's perspective, reciprocity of 'care' and 'overprotection' as well as discrepancy of 'care' were not predictors of socioemotional support.

There were no significant correlations among discrepancy in 'care', discrepancy in 'overprotection', and frequency of contact (see Appendix M). Reciprocity of 'care' and 'overprotection' were not significantly correlated, and reciprocity of 'care' was not significantly correlated to discrepancy of 'care' (see Appendix N).

B. Child-Generated Data

The table for the hierarchical multiple regression of social support on reciprocity and frequency of contact with child-generated data is presented in Table 13B. The hierarchical regression analyses for child-generated data revealed quite a different pattern of components with respect to the quality of the relationship. The 'care' part of the quadratic component (i.e., reciprocity) made a significant contribution to the socializing dimension, indicating that reciprocal

Table 13B

Hierarchical Multiple Regression Analysis of Child-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, Frequency of Contact, Discrepancy and Reciprocity

Criterion Variable: Socializing (Child's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.314	-1.411 **	.099	.099
Linear Component:				
Dcare		-.856		
	.321		.004	.103
Dover		.518		
Quadratic Component:				
Sq. Dcare		3.820 *		
	.413		.068	.171
Sq. Dover		-.272		

$F(5,79)=3.25$, $p \leq .01$ Per cent Variance = 17.1%

Criterion Variable: Relational Sentiments (Child's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.303	-.534**	.092	.092
Linear Component:				
Dcare		.395		
	.326		.014	.106
Dover		.200		
Quadratic Component:				
Sq. Dcare		1.038		
	.379		.038	.144
Sq. Dover		-.108		

$F(5,79)=2.66$, $p \leq .03$ Per cent Variance = 14.4%

Table 13B Continued

Criterion Variable: Self-Feeling States (Child's Perspective)

Predictor Variable	r	B	R-Sq. Increment	Overall R-Sq.
Frequency of Contact	.283	-.746 **	.080	.080
Linear Component:				
Dcare	.313	-.642	.018	.098
Dover		.132		
Quadratic Component:				
Sq. Dcare	.366	-1.298	.036	.134
Sq. Dover		.102		

$F(5,79)=2.44$, $p \leq .04$ Per cent Variance = 13.4%

* $p \leq .05$
** $p \leq .01$

Note. Frequency of contact was entered in the first step, the linear reciprocity variables were entered in the second step, and the quadratic variables were entered in the third step of a hierarchical multiple regression. The figures shown for the overall beta coefficient and the overall model (i.e., F) are from the final equation with all variables in the equation. The figures shown for r, R-Sq. Increment, and the Overall R-Squared are for each individual step.
Discrepancy of care is calculated by subtracting the sum of items 5, 9 and 18 from the child's perspective from the sum of items 5, 9 and 18 from the mother's perspective;
Discrepancy of overprotection is calculated by subtracting the sum of items 2 and 12 from the child's perspective from the sum of items 2 and 12 from the mother's perspective.

'care' significantly contributed to socializing. On the other hand, discrepancy in the relationship (i.e., linear component) did not make a significant contribution in any of the three dimensions. Frequency of contact and reciprocity of 'care' were significant for socializing, the overall $F(5,79)=3.25$, $p \leq .01$, accounting for 17.1% of the variance. Frequency of contact was significant for relational sentiments, the overall $F(5,79)=2.66$, $p \leq .03$, accounting for 14.4% of the variance. Frequency of contact was significant for self-feeling states, the overall $F(5,79)=2.44$, $p \leq .04$, accounting for 13.4% of the variance. Therefore a curvilinear relationship only existed between the quadratic term and socializing, and it involved the 'care' dimension. Thus reciprocity of 'care' was not significant for emotional support. Reciprocity of 'overprotection', and discrepancy of 'care' and 'overprotection' were thus irrelevant in terms of the child's perspective for the socializing, relational sentiments, and self-feeling states dimensions.

There were no significant correlations among frequency of contact, discrepancy in 'care' and discrepancy in 'overprotection' (see Appendix O). The Pearson correlations of mother-generated, child-generated, and discrepancy data are presented in Appendix P, and the dependent t-tests are presented in Appendix Q. There were significant differences between the 'overprotection' scores for mother and child, and between the discrepancy scores for 'care' and 'overprotection'. However, the differences between 'care' scores for mother and child were not significantly different, but were positively correlated.

IV. Subsidiary Analyses for Mother and Child Data

A. Mother-Generated Data

The average number of items used per subject, the percentage of women not requiring assistance for each item, and both the most and least consistently applicable items were tallied for both the service and financial/advice dimensions from the mother's perspective. The average number of items used per subject was 3.08 for the service dimension and 3.39 for the financial/advice dimension. More than 50% of women did not need help from the most supportive adult child for eight of the nine service support items, and six of the eight financial/advice support items (see Appendix R). Some of the most consistently applicable service items were helping when ill (number 4) and helping with big chores (number 7), and for financial/advice, advising what to do about health (number 7) and discussing alternative plans (number 8). Some of the least consistently applicable service items were helping with personal care (number 8) and helping with writing letters and cheques (number 9), and for financial/advice, assisting with rent/mortgage (number 1) and financially assisting with other bills (number 4).

Since one of the few measures of the quality of relationships in the literature was the item in which the respondent was asked how emotionally close she feels to the target, emotional closeness was entered, in place of the PBI, into regression equations with frequency of contact for the socializing and two emotional dimensions of social

Table 14

Pearson Correlations of Emotional Closeness Item, Frequency of Contact, Care and Overprotection from the Perspective of the Mother

	CLOSE	FREQ	CARE	OVER
CLOSE	1.000 P=****			
FREQ	.277 P=.003	1.000 P=****		
CARE	.243 P=.007	.150 P=.068	1.000 P=****	
OVER	-.319 P=.001	-.084 P=.203	-.074 P=.232	1.000 P=****

Note. CLOSE = Emotional closeness (How close do you feel is your relationship with ...?); n=100 for mother data.

Table 15

Regression Analysis of Mother-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, Frequency of Contact, and the Item for Emotional Closeness

Criterion Variable: Socializing (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.824	.782	-1.054	.295
Frequency of Contact	-2.142	.357	-5.996	.001 ***

$F(2,97)=21.98$, $p \leq .001$ Per cent Variance = 31.2%

Criterion Variable: Relational Sentiments (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.829	.338	-2.451	.016 *
Frequency of Contact	.072	.155	.463	.645

$F(2,97)=3.03$, $p \leq .05$ Per cent Variance = 5.9%

(table continued)

Table 15 Continued

Criterion Variable: Self-Feeling States (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.228	.309	-.738	.462
Frequency of Contact	-.183	.141	-1.294	.199

$F(2,97)=1.50$ $p \leq .23$ Per cent Variance = 3.0%

* $p \leq .05$
*** $p \leq .001$

support. The correlation matrices are presented in Table 14, and the results of the regression analyses are in Table 15. More specifically, when the emotional closeness item was substituted for the PBI and was entered with frequency of contact it did not contribute to either the socializing or self-feeling states dimensions, and only contributed minimally (5.9%) to relational sentiments. The results for both socializing $F(2,97)=21.98$, $p<.001$ and relational sentiments $F(2,97)=3.03$, $p<.05$ are presented in Table 15. The results for self-feeling states were not significant. It should be noted that one item of relational sentiments was the same as the closeness item.

Since studies in the literature use a single item of emotional closeness, this same item was entered as the sole predictor variable with the socializing, relational sentiments and self-feeling states dimensions of social support for criterion variables. This analysis, when compared to the regression with frequency and closeness, revealed that frequency of contact does make a significant contribution when entered into multiple regression analysis with emotional closeness. The results of the regression analysis are presented in Table 16, and the Pearson correlations of the predictor and criterion variables are displayed in Appendix S. High emotional closeness significantly predicted high socializing support, $F(1,98)=5.90$, $p<.02$, accounting for 5.7% of the variance, and high relational sentiments support, $F(1,98)=5.89$, $p<.02$, accounting for 5.7% of the variance. The result for self-feeling states support was not significant.

The means and standard deviations for the rating of the

Table 16

Regression Analysis of Mother-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, and the Item for Emotional Closeness

Criterion Variable: Socializing (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-2.125	.875	-2.429	.017 *

$F(1,98)=5.90$, $p \leq .02$ Per cent Variance = 5.7%

Criterion Variable: Relational Sentiments (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.786	.324	-2.427	.017 *

$F(1,98)=5.89$, $p \leq .02$ Per cent Variance = 5.7%

Criterion Variable: Self-Feeling States (Mother's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.339	.298	-1.138	.258

$F(1,98)=1.30$, $p \leq .26$ Per cent Variance = 1.3%

* $p \leq .05$

relationship, frequency of phoning and visiting, and date and duration of the last visit using the mother data are presented in Appendix T. The correlations of geographic proximity, frequency of contact, visiting and phoning from the perspective of the mother are in Appendix U.

B. Child-Generated Data

Since geographic proximity and frequency of contact were highly correlated (r=-.63) and contrary to the literature geographic proximity was not a significant predictor in the current study when they were entered together, frequency of contact and geographic proximity were entered separately into a regression equation with service support as the criterion variable to determine if they each made an independent significant contribution. Under these circumstances, both geographic proximity and frequency of contact were significant predictor variables, $F(1,83)=6.97$, $p<.01$ and $F(1,83)=17.89$, $p<.001$ respectively, and accounting for 7.8% and 17.8% of the variance respectively. The results of these regression equations are presented in Table 17.

The average number of items used per subject, the percentage of women not requiring assistance for each items, and both the most and least consistently applicable items were tallied for both the service and financial/advice dimensions from the adult child's perspective. The average number of items used per subject for the child-generated data was 6.24 for the service dimension and 5.41 for the financial/advice dimension.

Table 17

Regression Analysis of Child-Generated Data for Service Support for Geographic Proximity and Frequency of Contact Separately

Criterion Variable: Service (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T	
Geographic Proximity	.176	.067	2.641	.01	**

$F(1,83)=6.67$, $p<.01$ Per cent Variance = 7.8%

Criterion Variable: Service (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T	
Frequency of Contact	-.223	.053	-4.234	.001	***

$F(1,83)=17.92$, $p<.001$ Per cent Variance = 17.8%

** $p<.01$
*** $p<.001$

The average number of items used per subject was much lower for the mother-generated data. Therefore children reported that they performed a wider variety of service and financial/advice support tasks than their mothers thought they did. More than 50% of mothers did not require help from the most supportive adult child for two of the nine service items and four of the eight financial/advice items for child-generated data (see Appendix V). Some of the most consistently applicable service items were doing household chores (number 1) and running errands (number 2), and for financial/advice, advising about health (number 7) and discussing alternative plans (number 8). Some of the least consistently applicable service items were helping with personal care (number 8) and writing letters and cheques (number 9), and for financial/advice, financially assisting with the rent or mortgage (number 1) and helping with bills (number 4). Thus there was a great deal of overlap in the most and least consistently applicable items from the mothers' and children's points of view.

Since one of the few measures of the quality of relationships in the literature was the item in which the respondents were asked how emotionally close they feel to the target, emotional closeness was entered into regression equations with frequency of contact for the socializing and two emotional dimensions of social support. The correlation matrices for these three dimensions are presented in Table 18 and the results of the regressions are presented in Table 19. Closeness was the only significant predictor variable for socializing, relational sentiments and self-feeling states, $F(2,82)=18.05$, $p \leq .001$,

Table 18

Pearson Correlations of Emotional Closeness Item, Frequency of Contact, Care and Overprotection from the Perspective of the Child

	CLOSE	FREQ	CARE	OVER
CLOSE	1.000 P=****			
FREQ	.375 P=.001	1.000 P=****		
CARE	.515 P=.001	.093 P=.198	1.000 P=****	
OVER	-.037 P=.369	-.010 P=.463	.024 P=.413	1.000 P=****

Note. CLOSE = Emotional closeness (How close do you feel is your relationship with ...?); n=85 for child data.

Table 19

Regression Analysis of Child-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, Frequency of Contact, and the Item for Emotional Closeness

Criterion Variable: Socializing (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-3.368	.681	-4.943	.001 ***
Frequency of Contact	-.644	.491	-1.312	.193

$F(2,82)=18.05$, $p<.001$ Per cent Variance = 30.6%

Criterion Variable: Relational Sentiments (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-1.406	.255	-5.507	.001 ***
Frequency of Contact	-.196	.184	-1.063	.291

$F(2,82)=20.86$, $p<.001$ Per cent Variance = 33.7%

(table continued)

Table 19 Continued

Criterion Variable: Self-Feeling States (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-.880	.357	-2.465	.016 *
Frequency of Contact	-.424	.257	-1.646	.104

$F(2,82)=6.88$, $p<.002$ Per cent Variance = 14.4%

* $p<.05$
*** $p<.001$

Table 20

Regression Analysis of Child-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, and the Item for Emotional Closeness

Criterion Variable: Socializing (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-3.704	.634	-5.838	.001 ***

$F(1,83)=34.09$, $p \leq .001$ Per cent Variance = 29.1%

Criterion Variable: Relational Sentiments (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-1.508	.237	-6.366	.001 ***

$F(1,83)=40.53$, $p \leq .001$ Per cent Variance = 32.8%

Criterion Variable: Self-Feeling States (Child's Perspective)

Predictor Variable	Unstandardized Coefficient	Standard Error	T-value	Sig T
Emotional Closeness	-1.101	.334	-3.291	.002 **

$F(1,83)=10.83$, $p \leq .002$ Per cent Variance = 11.5%

** $p \leq .01$
*** $p \leq .001$

$F(2,82)=20.86$, $p<.001$, and $F(2,82)=6.88$, $p<.002$ respectively, and accounting for 30.6%, 33.7% and 14.4% of the variance respectively.

The emotional closeness item was entered as the sole predictor variable with the socializing and two emotional dimensions of social support as criterion variables in order to determine the amount of variance it accounted for without frequency of contact. The results are presented in Table 20, and the Pearson correlations of the predictor and criterion variables are displayed in Appendix W.

From the child's perspective, high emotional closeness was a significant predictor of more socializing, $F(1,83)=34.09$, $p<.001$, accounting for 29.1% of the variance. It was also a significant predictor of more relational sentiments support, $F(1,83)=40.53$, $p<.001$, accounting for 32.8% of the variance, and for self-feeling states support, $F(1,83)=10.83$, $p<.002$, accounting for 11.5% of the variance.

The means and standard deviations for the rating of the relationship, and frequency of visiting and phoning are presented in Appendix X. The correlations of geographic proximity, frequency of contact, phoning and visiting are presented in Appendix Y.

C. Comparison of Mother and Child Data

Two 'care' and two 'overprotection' items were irrelevant for both mother and child, namely, 'Does not help me as much as I need', 'Makes me feel I am not wanted', 'Likes me to make my own decisions' and 'Lets me decide things for myself.' Two additional items, namely, 'Frequently smiles at me' and 'Speaks to me in a warm and friendly voice' were not

relevant for the older adults. Items that were important to the elderly mothers but not to their adult children included, 'Enjoys talking things over with me', 'Does not seem to understand what I need or want', 'Appears to understand my problems and worries' and 'Is affectionate to me.'

The reliability of the two subsets of the PBI as a measuring instrument for the quality of the relationship was assessed with Cronbach's alpha (Cronbach & Gleser, 1957 & 1864). The Cronbach's alpha for the six 'care' items from the mother's perspective was .63, and it was .83 for the eight items from the child's perspective. The reliability coefficient for the three 'overprotection' items from the mother's perspective was .47, and the corresponding value for the four 'overprotection' items from the child's perspective was .70. Thus 'care' and 'overprotection' were more reliable for the middle-aged adults than for their elderly mothers, although the larger number of child items may be partially responsible for this difference.

The factor weightings of the retained 'care' items ranged from .40 to .56 (average=.50) for the mother-generated data, and from .40 to .79 (average=.41) for the child-generated data. The factor weightings of the retained 'overprotection' items ranged from .45 to .72 (average=.54) for the mother-generated data, and from .58 to .73 (average=.65) for the child-generated data.

When the contribution of 'care', 'overprotection' and frequency of contact in explaining the amount of variance was compared to the variance explained by a smaller model with frequency of contact only,

more variance was explained by the larger model for the socializing, relational sentiments and self-feeling dimensions from both the mothers' and children's perspectives. The larger model did not contribute significantly to the service dimension from either perspective. It also did not contribute significantly to the financial/advice dimension from the mother's perspective. Surprisingly, the addition of 'care' and 'overprotection' significantly contributed to the variance for the financial/advice dimension from the child's perspective.

The t-tests for all five dimensions of social support from the mother's and child's perspectives are presented in Table 21. Note that the financial/advice dimension is the only insignificant t-value. For the other four dimensions, adult children perceived that they provided significantly more service support and emotional support than their mothers believed that they did. On the other hand, mothers felt that their children provided more socializing support than the children believed that they did.

Table 21

Dependent T-tests for Service, Financial/Advice, Socializing, Relational Sentiments, and Self-Feeling States Support for Mother and Child Data

Variables	Mean	Standard Deviation	Corr.	2-Tail Prob	Df	T-value	2-Tail Prob
FSS	3.04	1.396	-.047	.668	84	-3.43	.001 ***
ASS	3.65	.798					
FSF	3.65	1.216	.031	.781	84	1.17	.240
ASF	3.50	.965					
FSSS	36.28	6.826	.557	.001	84	4.59	.001 ***
ASSS	32.93	7.456					
FSER	9.45	2.543	.203	.062	84	-3.68	.001 ***
ASER	10.81	2.860					
FSES	7.20	2.246	.242	.026	84	-5.44	.001 ***
ASES	9.38	3.519					

Note. F = Mother's perspective; A = Child's perspective;
SS = Service; SF = Financial/Advice; SSS = Socializing;
SER = Relational Sentiments; SES = Self-feeling States.

*** $p < .001$

Discussion

The purpose of the present study was two-fold: to assess the degree to which frequency of contact, geographic proximity, and the quality of the reciprocal relationship between elderly women and their most supportive adult children could account for the degree of social support obtained by these women considering both instrumental and socioemotional dimensions, and to evaluate the applicability of the Parental Bonding Instrument as a measure of the quality of relationships using two different populations.

In comparing the present study with previous studies, it should be emphasized that the network studies ask parents about the social support that their children provide collectively, and do not focus on any particular adult caregiver. Nevertheless, the frequency of contact and geographic proximity of the most supportive child in the present study is consistent with the demographic pattern presented in the literature (e.g., Shanas, 1979a and Kendig & Rowland, 1983) which refers to any one of a possible number of children (e.g., Have you seen at least one child in the past week?). Further, the significant correlation between geographic proximity and frequency of contact is also consistent with the findings of Bowling (1984), Hays (1984) and Leigh (1982), but contrary to the claim made by Shanas (1979a/b) that frequency of contact and geographic proximity are not correlated. Thus the findings in the current study are not a function of different patterns of children visiting or phoning less frequently, or living further away.

From the mother's perspective, the first sets of hypotheses that frequency of contact and geographic proximity would significantly predict instrumental support were not supported. These results were inconsistent with the findings of both Bowling (1984) and Kivett and Atkinson (1984) who found that high frequency of contact and close geographic proximity were both correlated to single items referring to high economic assistance, legal aid, help with decisions, and service support. It should be noted that, unlike previous literature, the present study utilised multiple regression techniques to predict dimensions of instrumental support, not correlating individual items.

In the child-generated data, on the other hand, frequency of contact significantly contributed to the service dimension, but not the financial/advice dimension. This finding is consistent with the results reported by Bowling (1984) and Hays (1984) with correlational data for the individual service items, but is not in agreement with their financial/advice items. When geographic proximity was entered without frequency of contact because of their high correlation, both were significant predictor variables of the service dimension. Although, consistent with the literature, frequency of contact and geographic proximity were correlated, clearly frequency of contact was a more important predictor variable for the service dimension than geographic proximity. This is of particular interest because many studies use these variables interchangeably or use one as an index of the other (e.g., Leigh, 1982; Bowling, 1984; Hays, 1984; Conners et al., 1979).

The sample of women in this study may be different from the samples

in the literature because the current one is comprised of urban residents, whereas studies in the literature predominantly used rural residents (e.g., Hays, 1984 and Kivett & Atkinson, 1984). Perhaps individuals in the rural settings have more chores and require more assistance, and need more financial assistance because of lower annual income.

A possible explanation for the somewhat unexpected findings in the present study for the service and financial/advice dimensions may be the high percentage of questions which were not applicable as these elderly women were very capable and did not need help, or received assistance from other sources. Furthermore, the validity of these dimensions was questionnable for this sample of elderly mothers since different items were applicable to different women. For the service dimension, two items were not applicable for most people (i.e., bathing and writing letters) leaving an average of three out of seven potentially relevant items. For example, if a relevant item for one woman is 'help with a big chores, such as springcleaning' which by its nature can not be done frequently, as compared to 'household repairs' which can be done more often, then the frequency for the big chore will be smaller than that for the smaller chore. On the other hand, there was a greater commonality of items in the child data, as the average was six out of a potential seven items. As with mothers, the items bathing and writing letters were not used by most of the adult children. A comparison of Appendices R and V reveals that, with few exceptions, the mothers report that they do most things themselves and the children report that they or

someone else provide some assistance in these areas. Thus the contents of Appendices R and V are somewhat misleading because the subjects were not asked who provided the assistance, although sometimes in the context of the interview they volunteered the information. Perhaps the discrepancy between mother and child occurred because the elderly mother took into account the help provided by a spouse, friends, relatives or other children, whereas the referent child only regarded the assistance that he/she provided.

Social support studies of the elderly have focussed primarily on instrumental support, although some studies may be construed to also assess some socioemotional elements such as social interaction (e.g., Kendig & Rowland, 1983) and emotional support (e.g., Leigh, 1982). Apart from a lack of differentiation of different dimensions of support, no studies have attempted to evaluate directly the role the quality of the relationship between a mother and an adult child may play. McPherson's (1983) argument that little attention has been directed toward examining the quality of parent-child relationships, and that the relationship between quantity of interaction and the quality of the relationship needs to be examined more closely is particularly applicable to the assessment of the different socioemotional dimensions of social support.

The quantity of interaction and the quality of the relationship were examined in the mother-generated data by entering frequency of contact, 'care' and 'overprotection' into multiple regression equations with the three dimensions of socioemotional support as criterion

variables. Mothers experiencing a high frequency of contact and an affectionate-constraint relationship (i.e., high 'care' and high 'overprotection') had more socializing with their most supportive child (see Table 6). These results partially supported the hypothesis, since low, not high 'overprotection' was expected to predict high socializing support. It is possible that the women perceived that they had sacrificed some of their autonomy to their children (i.e., compliance) in order to obtain more socializing support. Consistent with Kivett and Atkinson's (1984) finding, high frequency of contact was correlated with increased social interaction. However, since Lopata's (1978) study is the only one that delineated the five dimensions of social support, there are no comparable findings to the current study in the literature. Other studies utilized some of the same items as those in the present study but did not have clearly defined dimensions. In addition, measures of quality either consisted of one item (e.g., emotional closeness), or were inappropriate (e.g., using frequency of contact as an index of quality). The present study expands the results of earlier studies to include a more extensive quality measure (i.e., more items and two components). When the results for the model including the three predictor variables (i.e., frequency of contact, 'care' & 'overprotection') are compared to the one in which frequency of contact was the only predictor variable, quality of the relationship as measured by the PBI also made a significant contribution and increased the amount of explained variance.

Although one could argue that socializing is an essential and

critical human need for most people, the two studies attempting to assess the predictive role of the quality of the relationship between elders and their children considered only emotional support, but not socializing support (e.g., Leigh, 1982 and Kendig & Rowland, 1983). The hypothesis that high frequency of contact, high 'care', and low 'overprotection' would significantly predict the degree of relational sentiments support was partially supported. The hypothesis that these predictor variables would similarly predict the degree of self-feeling states support was also partially supported. The affectual component ('care') of the relationship was the sole significant predictor of emotional support in terms of both relational sentiments and self-feeling states. Somewhat in contradiction with the present findings, Kivett and Atkinson (1984), and Kendig and Rowland (1983) found frequency of contact and their respective measures of quality of the relationship to be correlated with a single item denoting emotional support. Emotional support is less tangible than service and socializing support, and thus the supporter does not have to be present physically. High caring relationships add to the amount of emotional support provided. Since frequency of contact is a very important predictor variable in the literature (Shanas, 1979a/b), it is particularly noteworthy that 'care', and not frequency of contact, is the significant predictor variable of the two emotional dimensions. What is of particular interest in the present study is the fact that unlike socializing, the controlling aspects of the relationship did not affect the amount of emotional support that the mother received.

Perhaps the issue of 'overprotection' versus autonomy was irrelevant for the emotional dimensions because of the overriding unstated but mutually understood nature of the parent-child relationship. Indeed, Beckman (1981, p.1085) theorized that mothers may store "some type of psychological credit" over their child-rearing years that can be redeemed in old age.

Consistent with the mother-generated data, when children experienced high maternal care and high frequency of contact, they engaged in more socializing with the mother (see Table 11). However, the controlling aspects of the relationship were not relevant to the child, but were important to the mother for more socializing. The issue of overprotectiveness versus autonomy may not have been important to the middle-aged child who has achieved independence from mother, but may be an important aspect of the relationship for the elderly woman because she fears that she may become dependent upon or overprotected by her adult children. Unlike the mother, the child who had high frequency of contact and experienced a great deal of maternal affection was more emotionally supportive of the mother (see Table 12). Only high 'care' was an important predictor for high emotional support from the mother's perspective. Perhaps the quality of the emotional support provided was more important than the quantity of such assistance. Thus adult children had the perception that high frequency of contact and high maternal affection were important for high emotional support. Mother and child did not perceive that overprotectiveness influenced the amount of emotional support provided. This may be attributable to the nature

of the parent-child relationship. Beckman (1981) suggested that mothers expect their children to provide support later in life to repay them for their efforts during the child-rearing years. Hence it is a matter of duty and repayment for support, rather than an issue of control versus autonomy.

In contrast to the results of the analyses of the quality of the relationship with the mother and child data, the discrepancy and reciprocity data are based on a few items and therefore may affect the value of the Cronbach's alpha and increase the amount of noise in the data. For example, there may be noise (i.e., extraneous variables) because some of the relevant variables were omitted when only the items common to both mother and child were used for these analyses. Thus the results presented for discrepancy and reciprocity should be interpreted with caution as both are measured with five items (i.e., three 'care' and two 'overprotection' items).

The third group of hypotheses dealt with reciprocity with respect to the mother-generated data (Table 13A). The hypothesis that frequency of contact, and reciprocity of 'care' and 'overprotection' between the elderly mother and her most supportive adult child would significantly predict each of the three socioemotional dimensions of social support was only supported in so far as frequency of contact was a significant variable for socializing and self-feeling states. Although not hypothesized, discrepancy in 'overprotection', whereby the mother exercised more control, did predict more social support for all three socioemotional dimensions. Perhaps when mothers perceive that they have

more control in the relationship, they are in a position to implicitly demand more social support from their children. The finding that reciprocity is not a significant predictor contradicts reciprocity theory that a balanced relationship is optimal. It is, however, consistent with Rook's (1987) finding that equity did not predict social satisfaction in family relationships, but did so in peer relationships according to the perspective of the elderly woman. Perhaps as Rook suggests, equity theory between mothers and children is not significant because it is socially acceptable for the mother to require such support, due to external factors such as limited mobility, financial constraint, physical impairment, or loss of her spouse. However, the adult children may not require as much support as they are in a better position to obtain it from others (e.g., can travel more easily to visit friends). In addition, it is mutually accepted by both parties that the child must repay the psychological debt incurred during childhood (Beckman, 1981). It is possible that discrepancy of 'care' was not a significant predictor of socioemotional support from the mother's perspective because she feels that members of a family should provide each other with socializing and emotional support, regardless of their feelings toward each other.

Unlike the mother-generated data, there was some minimal support for the importance of reciprocity from the child's perspective (Table 13B). The hypothesis that frequency of contact, and reciprocity of 'care' and 'overprotection' between the elderly mother and her most supportive adult child would significantly predict each of the three

socioemotional dimensions was supported. Frequency of contact was a significant predictor for all three dimensions and reciprocity of 'care' was also significant for the socializing dimension. It should be noted that discrepancy of 'care' and 'overprotection' were never significant predictors. Perhaps once children have reached maturity, they see themselves on equal footing with other adults including their mothers, and believe that an equal exchange of affection results. When there is a balance in the amount of affection given and received, the children socialize more with their mothers. Perhaps reciprocity of 'overprotection' is not an issue because in 47 of the 85 cases examined, both mother and child indicated that their relationship was characterized by low 'overprotection', and only 8 cases exhibited high 'overprotection'. One could speculate that because many of the relationships were mutually autonomous and autonomy can be beneficial in relationships, reciprocity of 'oveprotection' was not important for the adult child. In 78 of the 85 cases examined, both mother and child indicated that their relationship was characterized by high 'care'. Such a caring relationship encouraged both mother and child to spend more time together socializing. The adult children may feel that their frequent visiting and phoning is required in order to provide their mother with comfort, to act as a confidant, to help in emergencies, and to make her feel that she is important to them. Adult children may believe that high frequency of contact is essential to make their mother feel respected, secure and accepted. Reciprocity of 'care' and 'overprotection' may not have been significant predictors for emotional

support from the child's point of view because children may view it as their duty to provide emotional support to their elderly mothers, regardless of whether or not their mothers reciprocate that 'care' and 'overprotection.'

The present study has demonstrated the usefulness of the Parental Bonding Instrument (PBI) as a measure of the quality of a parent-adult child relationship. A similar factor structure emerged as in Parker et al. (1979) and Pettinger (1985) studies because sufficient appropriate items emerged on the 'care' and 'overprotection' dimensions demonstrating that both the affectionate and controlling aspects of a relationship were important factors. It should be borne in mind, however, that the scales developed by Parker et al. (1979) were applicable to young adults' retrospective view of their parents' behaviour towards them as children. Pettinger's (1985) modification of these scales allowed him to assess the current relationship between a young adult and a significant elderly person as the referent. Pettinger's modified scales were used in the present study to assess the current relationship between a middle-aged adult and an elderly mother from both perspectives. The 'care' and 'overprotection' items generated by the mother and child data were subsets of the original Pettinger scales. The Pettinger (1985) study revealed that twelve 'care' and five 'overprotection' items had factor weightings of .40 or more. In the present study, six 'care' and three 'overprotection' items had sufficient weightings to be considered as mother-generated items, and eight 'care' and four 'overprotection' items were retained as

child-generated items. It is not surprising that different items are relevant not only for different age groups, but also for different referents. More specifically, the significant elderly person who was a referent in the Pettinger (1985) study, given the age of the subjects, could not possibly have been the subject's mother. Furthermore, the mother was asked in the current study to assess her own parental role. What constitutes a significant relationship between a mother and her middle-aged adult child is different from that between a young adult and a significant elderly person. Perhaps these 17 Pettinger items were more relevant for young adults reporting their current experience with an older person, than for the middle-aged adults reporting the quality of their experience with their elderly mothers.

Although 'care' and 'overprotection' emerged as Factor 1 and Factor 2 respectively for both mother- and child-generated data, the items comprising these two factors were not always the same. It is not surprising that items constituting the demonstration of 'care' and autonomy (i.e., 'overprotection') in a relationship differed in two age groups and two different role relationships. Mother and child only had four common 'care' items and three common 'overprotection' items above the .40 level. One could interpret the different subscales to be indicative of their definition of affectionate and controlling aspects of a relationship respectively. Thus they both felt that praise, emotional warmth, talking together a great deal and providing comfort when upset were characteristic of an affectionate relationship, and that babying, overprotectiveness, and controlling of one's activities was not

conducive to autonomy. Mothers felt that understanding of needs and wants, and talking things over together was important for an affectionate relationship. However, the most supportive adult children believed that affection, frequent smiling, understanding problems and worries, and speaking in a warm and friendly voice were important for an affectionate relationship. The demonstration of affection constitutes three of the four items that met the criterion for the child data, but not for the mother data. Perhaps mother and child differ in the way that they expressed affection due to their respective roles as parent and offspring. With respect to 'overprotection', the two groups had three items in common and only differed on one item. Adult children, but not their mothers, felt that the invasion of privacy was characteristic of 'overprotection'.

Altough the PBI scale that emerged in this study had a good average range and reasonable factor weightings for both mother- and child-generated data, more PBI items are apparently applicable to young (Pettinger, 1985) and middle-aged adults than to elderly women. More 'care' and 'overprotection' items need to be developed for the elderly sample. Thus the PBI scales used in this study were appropriate for both samples, had adequate reliability for both mother and child data, had similar factor structures to previous studies, and revealed differences in the way that these groups exhibited affection and overprotection in their relationships with each other. Future research should involve testing the validity of the PBI with middle-aged and elderly participants.

The usefulness of the PBI as a measure of the quality of the relationship was supported by subsequent analyses in which a single item of emotional closeness replaced —'care' and 'overprotection' (i.e., "How close do you feel is the relationship between you and your mother?"). The PBI accounted for a greater percentage of the variance in the three socioemotional dimensions than the single item used for a quality measure in previous studies for the mother-generated data. The PBI and emotional closeness item contributed nearly the same amount of variance for all three dimensions from the child's perspective. Frequency of contact and emotional closeness from the child's perspective for relational sentiments accounted for nearly twice as much variance as the mother-generated data with the PBI. The emotional closeness item was appropriate for the child but not for the mother.

One could speculate that the emotional closeness item was a good predictor of socioemotional support for the child but not for the mother because the correlation for 'care' and emotional closeness was higher for the child than for the mother, and emotional closeness measured the same construct for the child, but evaluated two different constructs for the mother. Therefore, if only middle-aged adult children are interviewed, then emotional closeness can be used instead of the PBI as a measure of quality.

In comparing the mother and child perspectives on the amount of socializing, t-tests were performed (see Table 21). Results indicated that the mothers perceived their children as providing less socializing support than the children thought they were. It is possible that the

elderly women view themselves as leading independent social lives and do not want to feel that they are dependent on their children for social activity. These mothers may also decrease the importance of the frequency of socializing of their most supportive adult child because they have a spouse, other children or relatives with whom they can socialize. Many of the elderly women had quite an active social life apart from their families. The children may feel that they are putting forth an effort to socialize with their mothers, even though they (i.e., the adult children) are busy with their own careers, friends and children.

When the results from the mother's and child's perspectives were compared with respect to relational sentiments and self-feeling states, high 'care' was a significant predictor for both mother and child, but high frequency of contact was only a significant predictor for the child. Thus the mother perceived the child as being more emotionally supportive than the child perceived that he/she was. The results for relational sentiments and self-feeling states were consistent with Brody's (1985) finding that adult caregivers never feel that they do enough. Frequency of contact was important in the socioemotional support from the child's perspective since unlike the mother, the adult caregivers must experience both a high degree of 'care' and high frequency of contact before they think that they are emotionally supportive of their mother. Possibly frequency of contact was not significant for the mother since emotional support is less tangible than service and thus supporters do not have to be present physically to

provide it. Perhaps the high significant correlation between the frequency of contact and emotional closeness, only enables one of these variables to be significant. In other words, frequency of contact and the emotional closeness item may both measure closeness, and frequency of contact may be an index of quality when the emotional closeness item is used as stated by Kivett and Atkinson (1984).

Indeed, when the emotional closeness item was entered alone with socializing, relational sentiments and self-feeling states as criterion variables, it was a significant predictor for relational sentiments for mother and child data. Closeness was a significant predictor for both socializing and self-feeling states for the child data. However, the results for the self-feeling states were not significant for mother-generated data. The results for the child data and for the emotional dimension with mother data followed the pattern of findings in which emotional closeness and frequency of contact were the predictor variables. The surprising finding was that the results for socializing were significant for the mother data. The amount of variance accounted for in these analyses was only slightly less than that for the results with both frequency of contact and closeness as predictor variables. Thus the correlation between these two predictor variables plays a role in the insignificant finding for socializing from the mother's perspective, although it does not account for the insignificant finding with self-feeling states with the mother's data.

The present study used three different data sources to predict five dimensions of social support. Because the studies in the literature in

this area typically use data from elderly participants or their children, the present study allows one to compare the predictive value of both of these sources individually as well as in combination, by comparing the amount of variance accounted for in the dimensions of social support. Information from the adult children can predict more instrumental support (i.e., service support only). Frequency of contact plays a more important role than geographic proximity in accounting for service support from the child's perspective. Perhaps of greater importance is a comparison of sources that predict socioemotional support. For socializing and self-feeling states support, data from elderly mothers has greater or equivalent predictive value than the child data when the measure of the quality of the relationship is the PBI. Data obtained from the most supportive adult child accounted for approximately twice the variance as the mother data for the relational sentiments dimension of emotional support. With respect to the child data, it is particularly noteworthy that the emotional closeness item as compared to the PBI yielded very similar results. The results from both perspectives reveal that mother and child view the relationship differently. The third source of data which takes into account both mother and child overall, does not increase the amount of socioemotional support predicted. Findings indicated that discrepancy of 'overprotecion' was important for socioemotional support from the mother's perspective, and reciprocity of 'care' was important for socializing support from the child's perspective.

In summary then, the contributions of the present study clarify

some of the theoretical issues in the social support literature, extend our knowledge base about the supportive data of families and provide potentially valuable instruments for future research.

The pattern of findings are consistent with Thoits' (1982) expansion of the theoretical model for social support postulated by Cobb's (1976) and Kaplan et al.'s (1977) models. Thoits theorized that the social needs outlined by Kaplan as the extent to which the individual is gratified through interaction with others, could be met by either socioemotional assistance or instrumental aid. From the mother's perspective in the current study, the characteristics of the relationship with the most supportive adult child did indeed significantly predict socioemotional aid. From the child's perspective, these characteristics significantly predict both instrumental and socioemotional support.

The reciprocity data did not support Cobb's (1976) concept of mutual obligations, but did support both Kaplan's and Thoits' view that reciprocity in the quality of the relationship was not necessary. Vaux (1982) also excluded mutual obligations as a characteristic of an individual's social network. In the current study, reciprocity was not important from the mother's perspective, and only reciprocity of 'care' was a significant predictor from the child's perspective. Thus the elderly mother and her most supportive adult child do not need to exchange equal amounts of 'care' and 'overprotection' in their relationship.

Our knowledge base about the social support obtained by the elderly

women was extended. Social support was applied to the quality of the relationship, rather than to the loneliness, self-esteem or life satisfaction of the women. Both the quality and the quantity of interaction were significant predictors of social support. Frequency of contact was a more important predictor of instrumental support than geographic proximity. Lopata's five dimensions of social support provided a richer data base for the support obtained by elderly women than single items. The information derived from the elderly person is sufficient for predicting social support, thereby reducing the necessity of collecting data from the adult child. The interview format encompasing a variety of measuring instruments appeared to provide an appropriate form for eliciting information from participants. Consequently, this format could be applied to other populations of women such as those receiving a range of community services.

Several strengths and limitations of the present study should be emphasized. The use of multivariate regression techniques is a more sophisticated statistical procedure than the simple correlation techniques typically reported in the literature. In multivariate techniques, many interrelated variables are examined in combination and thus additional information is obtained from these interrelationships. It should be noted, however, that the results of the analysis of factorial designs with categorical variables in nonexperimental research must be interpreted with caution. Because the study focused on a specific parent-child relationship designated by the mother as the most supportive one, much more detailed information was gained than is

typically provided in network studies. On the other hand, one may have an incomplete picture of instrumental support provided by significant others. A third strength of this study is the large, randomly selected sample of elderly women living independently in the community. As in any study of course, a potential bias is introduced by the lack of participation of all eligible women contacted. Finally, dimensions rather than single-item measures were used to evaluate 'care', 'overprotection', and social support.

Directions for future research could involve generating additional items for the PBI for elderly women. In addition, the participants could be asked to identify those who provided the instrumental support if their most supportive adult child did not assist in this area. The study could be repeated with elderly men in order to assess whether the predictor variables for women also predict social support for men. Older women who make use of community resources such as home care, could be compared to the women in this study who did not receive such assistance.

References

Barrera, M. Jr., & Ainlay, S. (1983). The structure of social support: A conceptual and empirical analysis. Journal of Community Psychology, 11, 133-143.

Beckman, L.J. (1981). Effects of social interaction and children's relative inputs on older women's psychological well-being. Journal of Personality and Social Psychology, 41, 1075-1086.

Bengtson, V.L., & Schrader, S.S. (1982). Parent-child relations. In D.J. Mangen & W.A. Paterson (Eds.), Social Roles and Social Participation, Volume 2. Minneapolis: University of Minneapolis Press.

Black, M. (1986). Health and social support of older adults in the community. Canadian Journal on Aging, 4(4), 213-226.

Botwinick, J. (1978). Aging and behavior, Second edition. New York: Springer.

Bowling, A. (1984). Caring for the elderly widowed - the burden on their supporters. British Journal of Social Work, 14(5), 435-455.

Bradburn, N.M. (1969). The structure of psychological well-being. Chicago: Aldine.

Brody, E.M. (1985). Parent-care as a normative family stress. Gerontologist, 25, 19-29.

Campbell, A., & Converse, P.E. (1980). The quality of American life, 1978 (machine-readable data file). First ICPSR edition. Ann Arbor, MI: Center for Political Studies, Institute for Social Research. Ann Arbor, MI: Inter-University Consortium for Political and Social Research, distributor.

Campbell, A., Converse, P.E., & Rodgers, W.L. (1976). The quality of American life. New York: Russell Sage Foundation.

Cannell, C.F., & Groves, R.M. (1979a). Development and experimentation with telephone data collection techniques (machine-readable data file). Ann Arbor, MI: Survey Research Center, Institute for Social Research.

Cannell, C.F., & Groves, R.M. (1979b). Evaluation of telephone and personal interviews as mechanisms for the collection of health interview data (machine-readable data file). Ann Arbor, MI: Survey Research Center, Institute for Social Research.

Caplan, R.D., Robinson, E.A.R., French, T.R.P. (Jr.), Caldwell, J.R., & Shinn, M. (1976). Adhering to medical regiments: Pilot experiments in patient education and social support. Ann Arbor: University of Michigan.

Caplan, G. (1976). The family as a support system. In G. Caplan and M. Killilen (Eds.). Support systems and mutual help: Multidisciplinary explorations. New York: Greene and Stratton. variance accounted for in the dimensions of social support.

Chambers, L.W. (1982). The McMaster health index questionnaire: Methodological documentation and report of the second generation of investigation. (Final report submitted to the Health Systems Research Committee of the Ministry of Health, Project DM376). Hamilton, Ontario, Canada: McMaster University.

Cobb, S. (1976). Social support as a modificator of life stress. Psychosomatic Medicine, 38, 300-314.

Conner, K., Powers, E., & Bultena, G. (1979). Social interaction and life satisfaction: An empirical assessment of late-life patterns. Journal of Gerontology, 34, 116-121.

Corso, J.F. (1977). Auditory perception and communication. In J.E. Birren & K.W. Shaie (Eds.), Handbook of the Psychology of Aging. New York: Van Nostrand Reinhold.

Cronbach, L.J., & Gleser, G.C. (1957). Psychological Tests and Personnel Decisions. Urbana: University of Illinois Press.

Cronbach, L.J., & Gleser, G.C. (1964). The signal/noise ration in the comparison of reliability coefficients. Educational and Psychological Measurement, 24, 467-480.

Curtin, R.T. (1978). Surveys of Consumer Attitudes (machine-readable data file). Ann Arbor, MI: Survey Research Center, Institute for Social Research.

DiMatteo, M., & Hays, R. (1981). Social support and serious illness. In B. Gottlieb (Ed.), Social Networks and Social Support. Beverley Hills, California: Sage Publications, Inc.

Dunkle, R.E. (1983). The effect of elders' household contributions on their depression. Journal of Gerontology, 38(6), 732-737.

Fischer, C.S. (1982). To dwell among friends. Chicago, Illinois: University of Chicago Press.

Gottlieb, B.H. (Ed.) (1976). Social networks and social support in community mental health. Beverley Hills, California: Sage Publications, Inc.

Groves, R.M. (1978). On the mode of administering a questionnaire and responses to open-ended items. Social Science Research, 7, 257-271.

Groves, R.M., & Kahn, R.L. (1976). Surveys by telephone (machine-readable data file). Ann Arbor, MI: Survey Research Center, Institute for Social Research.

Hays, J.A. (1984). Aging and family resources: Availability and proximity of kin. The Gerontologist, 24(2), 149-153.

Herzog, A.R., Rodgers, W., & Kulka, R.A. (1983). Interviewing older adults: A comparison of telephone and face-to-face modalities. Public Opinion Quarterly, 47, 405-418.

Hirsch, B.J. (1979). Psychological dimensions of social networks: A multimethod analysis. American Journal of Community Psychology, 7, 263-277.

Hopkins, K.D., & Glass, G.V. (1978). Basic Statistics for the Behavioral Sciences. Englewood Cliffs, New Jersey: Prentice-Hall, Inc.

Hoyt, D.R., & Babchuk, N. (1983). Adult kinship networks: The selective formation of intimate ties with kin. Social Forces, 62(1), 84-101.

Johnson, E.S. (1978). "Good" relationships between older mothers and their daughters: A causal model. The Gerontologist, 18, 301-306.

Johnson, E.S., & Bursk, B. (1977). Relationships between the elderly and their adult children. The Gerontologist, 17, 90-96.

Jordan, L.A., Marcus, A.C., & Reeder, L.G. (1980). Response styles in telephone and household interviewing: A field experiment. Public Opinion Quarterly, 44, 210-222. 210-222.

Kaplan, B.H., Cassel, S.C., & Gore, S. (1977). Social support and health. Medical Care, 15, (Suppl.), 47-58.

Kendig, H.L., & Rowland, D.T. (1983). Family support of the Australian aged: A comparison with the United States. The Gerontologist, 23(6), 643-649.

Kivett, V.R., & Atkinson, M.P. (1984). Filial expectations, associations, and helping as a function of number of children among rural-transitional parents. Journal of Gerontology, 39(4), 499-503.

Leigh, G.K. (1982). Kinship interaction over the family life span. Journal of Marriage and the Family, 44, 197-208.

Lopata, H.Z. (1978). Contributions of extended families to the support systems of metropolitan area widows: Limitations of the modified kin network. Journal of Marriage and the Family, 40, 355-364.

Marshall, V.W., Rosenthal, C.S., & Synge, J. (1980). Generational relations and succession project. Unpublished work supported by the Social Sciences and Humanities Research Council of Canada. (The first two authors are members of the Department of Behavioral Science, University of Toronto and the third author, a member of the Sociology Department, McMaster University).

McCallister, L., & Fischer, C.S. (1978). A procedure for surveying personal networks. Sociological Methods and Research, 7, 131-148.

McPherson, B.D. (1983). Aging as a social process. Toronto: Butterworths.

Miller, W.E. (1979). American National Election Study, 1978 (machine-readable data file). Second ICPSR edition. Ann Arbor, MI: Center for Political Studies, Institute for Social Research. Ann Arbor, MI: Inter-University Consortium for Political and Social Research, distributor.

Miller, W.E., & Miller, A.H. (1977). The CPS 1976 American National Election Study (machine-readable data file). First ICPSR edition. Ann Arbor, MI: Center for Political Studies, Institute for Social Research. Ann Arbor, MI: Inter-University Consortium for Political and Social Research, distributor.

Murray, H.A. (1943). Thematic Apperception Test. Cambridge, Mass.: Harvard University Press. 134-143.

Nie, N.H., Hull, C.H., Jenkins, J.G., Steinbrenner, K., & Bent, D.H. (1975). SPSS - Statistical Package for the Social Sciences. Second edition. U.S.A.: McGraw-Hill, Inc.

Norbeck, J., Lindsay, A., & Carrieri, V. (1982). The development of an instrument to measure social support. Nursing Research, 30(5), 264-269.

Norbeck, J., Lindsay, A., & Carrieri, V. (1983). Further development of the Norbeck social support questionnaire: Normative data and validity testing. Nursing Research, 30(5), 264-269.

Parker, G., Tupling, H., & Brown, L.B. (1979). A parental bonding instrument. British Journal of Medical Psychology, 52, 1-10.

Pettinger, C.M. (1985). The effects of current and early experience in shaping attitudes toward the elderly. Unpublished undergraduate thesis, Wilfrid Laurier University, Waterloo, Ontario.

Rogers, T.F. (1976). Reinterviewing urban residents by telephone and in person: effects on responses. Public Opinion Quarterly, 40, 50-65.

Rook, K.S. (1987). Reciprocity of Social Exchange and Social Satisfaction Among Older Women. Journal of Personality and Social Psychology, 52, 145-154.

Rosow, I. (1967). Social Integration of the aged. New York: Free Press.

Russell, D., Peplau, L.A., & Cutrona, C.E. (1980). The revised UCLA Loneliness Scale: Concurrent and discriminent validity. Journal of Personality and Social Psychology, 39, 472-480.

Shanas, E. (1979a). Social myth as hypothesis: The case of the family relations of old people. The Gerontologist, 19, 3-9.

Shanas, E. (1979b). The family as a social support system in old age. The Gerontologist, 19, 169-174.

Siemiatycki, J. (1979). A comparison of mail, telephone, and home interview strategies for household health surveys. American Journal of Public Health, 69, 238-245.

Stein, S., Linn, M.W., & Stein, E.M. (1982). The relationship of self-help networks to physical and psychological functioning. Journal of the American Geriatrics Society, 30, 764-768.

Tardy, C.H. (1985). Social support measurement. American Journal of Community Psychology, 13, 187-202.

Thoits, P. (1982). Conceptual, methodological, and theoretical problems in studying social support as a buffer against life stress. Journal of Health and Social Behavior, 23, 145-159.

Turner, R.J., Frankel, B.G., & Levin, D.M. (1983). Social support: Conceptualizations, measurement, and implications for mental health. In J.R. Greenley and R.G.S. Simmons (Eds.), Research in Community and Mental Health, Volume 3. London: JAI Press Inc.

Vaux, A. (1982). Measures of three levels of social support: Resources, behaviors, and feelings. Unpublished manuscript.

Vaux, A., & Harrison, D. (1985). Support network characteristics associated with support satisfaction and perceived support. American Journal of Community Psychology, 13(3), 245-268.

Vaux, A., Phillips, J., Holly, L., Thomson, B., Williams, D., & Stewart, D. (1986). The Social Support Appraisals (SS-A) Scale: Studies of reliability and validity. American Journal of Community Psychology, 14(2), 195-219.

Vaux, A., Riedel, S., & Stewart, D. (1987). Modes of Social Support: The Social Support Behaviors (SS-B) Scale. American Journal of Community Psychology, 15(2), 209-237.

Wiseman, F. (1972). Methodological bias in public opinion surveys. Public Opinion Quarterly, 36, 105-108.

Footnotes

[1] Dr. Brent Hall compiled the names, ages and addresses under the Ministry of Energy Grant #00-4338 in 1984. The total listing of 2627 elderly women aged 65 to 98 years was made available to Dr. Mary Kay Lane, the research supervisor for the present study.

APPENDIX A

Founded 1911

Department of Psychology

Wilfrid Laurier University *Waterloo Ontario, Canada N2L 3C5 Telephone (519) 884-1970*

We are conducting a study on the way families help each other and we need your assistance. This project is supported by Wilfrid Laurier University. Within the next week or so, you will receive a call from Dr. Mary Kay Lane or her assistant, Mrs. Lori Johnson to arrange a convenient time to meet with you. The interview should take no longer than 45 minutes or so and your response will be very valuable to the success of the study. Of course all your answers are completely confidential and your name will never be used.

If you have any questions about the study, or if you do not wish to be contacted, please call me at 884-1970, ext. 2071 or leave a message to return your call at ext. 2272

Yours sincerely,

Mary Kay Lane, Ph.D.
Associate Professor

MKL/nh

APPENDIX B

TELEPHONE CALL TO ELDERLY WOMEN

Hello, my name is (Mrs.) Lori Johnson and I am working with Dr. Mary Kay Lane from Wilfrid Laurier University. I am calling in connection with the Wilfrid Laurier University study on the way families help each other. Did you receive our letter?

IF No I am very sorry that you did not receive the letter. I sent it over a week ago and it should have arrived by now. The postal system is not always reliable. The letter would have informed you that you would be contacted by phone in order to schedule an interview. The interview concerns the way families help each other and should take about 45 minutes or so, depending on how many children you have.

All answers are confidential and your name will never be used. I would like to make an appointment with you for an interview.

1. But first I would like to verify your address.

   Is it ... ?

2. Also at this phase of the study we are particularly interested in senior citizens and their children.

   Are you sixty-five or older?

   1. Yes
   2. No

   If No Oh, I am sorry to have bothered you since this study is particularly interested in senior citizens. Thank you very much for your time.

3. Do you have any living children?

   (Probe: By children we mean anyone you think of as your child, be it one to whom you gave birth, an adopted child, a step-child, foster child, or any other child you may have raised.)

1. Yes - How many? _____

2. No

If No Unfortunately since our current focus is on how parents and children help each other, we will not be able to interview you at this time. Thank you very much for your trouble. GO TO END

Perhaps we could have our interview on _____ at _____. If this is not convenient, then try other times I will call you on the day of our interview to verify the time. If you have any problems, you can call 884-1970 ext. 2071. Thank you very much for you time. I will look forward to meeting you.

Problems and Questions

1. If the respondent states that she can not help as her family is average and ordinary, and has nothing to contribute, then the interviewer will attempt to convince her that she is needed and that it is necessary to find out about ordinary people too. In addition, she will be told that surprisingly little is known about how families help each other, that it is important that something is learned about all types of families and everyone has something special to contribute. It is important that a wide range of families from different backgrounds and with various ways of interrelating with each other, are interviewed.

2. If the respondent refuses right away, then repeat that we are interested in women over 65 with at least one living child, so that we can study the way that they interact with each other. Questions will be asked about the kinds of interactions that adult children have with their mothers, and that the juncture which is of particular interest is female senior citizens having adult children.

3. If she asks where the researchers obtained her name, then she will be informed that it was from the Waterloo city directory in the Wilfrid Laurier University library.

APPENDIX C

75 YEARS
Wilfrid Laurier University

Dear

We are conducting a study on the way families help each other and we have recently interviewed your mother, Mrs. . It is very important that we also receive some information from at least one other family member.

Within the next week or so, you will receive a call from Dr. Mary Kay Lane or her assistant, Mrs. Lori Johnson, to ask you a few questions over the phone. The interview should take approximately 20 minutes or so and your response will be very valuable to the success of the project. Of course, all your answers are completely confidential and your name will never be used.

If you have any questions about the study, or if you do not wish to be contacted, please call me at 884-1970, ext 2071 or leave a message to return your call at ext. 2272.

Yours sincerely,

Mary Kay Lane, Ph.D.
Associate Professor

MKL/nh

Waterloo, Ontario
Canada N2L 3C5
Telephone (519) 884-1970

APPENDIX D

COVER SHEET FOR WOMEN

INTERVIEWER #

RESPONDENT'S ID, NAME AND ADDRESS

CHANGES IN

TELEPHONE NUMBER _____ _____

Call #	Date	Day of Week	Time of Day	Phone/Visit	Result
1					
2					
3					
4					
5					
6					

FINAL RESULT

1. Interview Completed

3. Interview Begun, but not completed _____ (specify why)
4. Needs Interpreter _____ (specify language)
5. Refusal _____ (specify)
6. Not Eligible _____ (specify)
7. No Answer
8. Unlocatable/Moved
9. Respondent unwell or unable
10. Other _____ (specify)

SPECIAL NOTES _____

APPENDIX E

COVER SHEET FOR CHILD

INTERVIEWER # _____

RESPONDENT'S ID, NAME AND ADDRESS

CHANGES IN

TELEPHONE NUMBER _____ _____

Call #	Date	Day of Week	Time of Day	Phone/Visit	Result
1					
2					
3					
4					
5					
6					

FINAL RESULT

1. Interview Completed

3. Interview Begun, but not completed _____ (specify why)
4. Needs Interpreter _____ (specify language)
5. Refusal _____ (specify)
6. Not Eligible _____ (specify)
7. No Answer
8. Unlocatable/Moved
9. Respondent unwell or unable
10. Other _____ (specify)

SPECIAL NOTES _____

APPENDIX F

_____
Respondent I.D.

First I have a few questions about yourself and your family.

1. Would you tell me who normally lives here with you in your home and their relationship to you? (PROBE FOR RELATIONSHIP, I.E. CHILD, SPOUSE, FRIEND, BOARDER: AND AGE AND SEX).

	Relationship	Sex	Age
	_____	___	___
	_____	___	___
	_____	___	___
	_____	___	___
	_____	___	___
	_____	___	___

2. So _____ person(s) live(s) here with you? [SPECIFY NUMBER FROM ABOVE]

3. [IF SPOUSE NOT MENTIONED]. Are you
   ( ) 01. single
   ( ) 02. married
   ( ) 03. widowed
   ( ) 04. separated or divorced

4. In what year were you born? _____
   year

5. In what province or country were your born?

   ( ) 01. Newfoundland
   ( ) 02. Prince Edward Island
   ( ) 03. Nova Scotia
   ( ) 04. New Brunswick
   ( ) 05. Quebec
   ( ) 06. Ontario
   ( ) 07. Manitoba
   ( ) 08. Saskatchewan
   ( ) 09. Alberta
   ( ) 10. British Columbia
   ( ) 11. Other English Speaking Country
   _____
   specify

   5 a. About how old were you when you came to Canada?
   _____
   age

   ( ) 12. Other Country
   _____
   specify

   ( ) 77. (Ref)
   ( ) 88. (DK)
   ( ) 99. (NA)

6. What has been your major occupation during most of your life?

( ) 1. homemaker [GO TO 7]
( ) 2. employed outside the home part-time
( ) 3. employed outside the home full-time

6(a) What kind of work were you mostly doing? Please give a full description, e.g., selling clothes, office manager, bank clerk, secretarial.

_____

_____

_____

6(b) What were your most important activities or duties? (e.g., filing, posting invoices, delegating work, typing)

_____

_____

_____

_____

6(c) In what kind of business, industry or service was this job? (e.g., retail shoe store, bank, medical clinic).

_____

_____

_____

_____

7. [IF NO SPOUSE LIVING WITH RESPONDENT GO TO 8]
Is your husband currently employed?

( ) 1. Yes 7(a) Is this full-time or part-time work?

( ) 1. full-time
( ) 2. part-time

7(b) What kind of work is he doing? Please give a full description, e.g., brick laying foreman.

_____

_____

_____

7(c) What are his most important activities and duties?

_____

_____

_____

7(d) In what kind of business, industry or service is this job?

_____

_____

_____

_____

( ) 2. No 7(e) Do you consider him to be:

( ) 1. retired
( ) 2. unemployed
( ) 3. laid-off temporarily
( ) 4. or something else (e.g., sick or on strike etc.)

8. In this section, we would like to find out about your children.

Do you have any living children? By children we mean anyone you think of as your child, be it one to whom you gave birth, an adopted child, a step-child, or any other child you may have raised.

( ) 1. Yes [INCLUDE FOSTER CHILD IF R CONSIDERS SAME AS
( ) 2. No NATURAL CHILD]
( ) 7. (Ref)
( ) 8. (DK)
( ) 9. (NA)

Can you tell me the names and ages of these children, regardless of whether you raised them yourself or not. Please start with the first born.

	Child's Name	Age	Is the Child Presently Living	
			Yes	No
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

[FILL OUT CHILD FACT SHEET FOR EACH CHILD WHO LIVED TO 18 AND OVER ONLY]

9. Although many or all of your children may have been supportive, I would like you to focus on only one of your children who, overall, has been most supportive to you during the past year.

   Name: _____

10. [SOCIAL SUPPORT: SERVICE]

   People often help each other out in a lot of different ways.

   [SHOW CARD 1] You may give me the number that best describes how often _____ does any of the following things to help you out?

   1. Household chores, e.g., cleaning, cooking ____
   2. Errands, e.g., grocery shopping ____
   3. Minor household repairs, e.g., fixing a tap ____
   4. Helps when I'm not feeling well. ____
   5. Drives me for appointments or shopping. ____
   6. Talks to other people to arrange something for me, e.g., repairman. ____
   7. Helps me with a big chore such as spring housecleaning, sorting things or moving. ____
   8. Helps me with personal care, e.g., bathing, dressing. ____
   9. Helps me in writing letters, cheques, etc. ____

11. [SOCIAL SUPPORT: FINANCIAL AND ADVICE]

Sometimes people help each other out in a very practical way by giving them financial assistance or giving them some guidance in financial or legal matters.

[SHOW CARD 1]

How often does _____ do any of the following?

1. _____ financially assist you with rent/mortgage payments. ____
2. _____ give you money. ____
3. _____ provide you with gifts of clothing something you really want/need. ____
4. _____ financially assist with other bills. ____
5. _____ help you with your income tax. ____
6. _____ help with decisions about moving. ____
7. _____ advise you what to do about your health. ____
8. Discuss alternative plans with you. (e.g., financial plans, vacation plans, household renovations or anything like that.) ____

12. [SOCIAL SUPPORT: SOCIALIZING]

How often does _____ do the following activities with you?

[SHOW CARD 1]

1. _____ watch a T.V. program with you. ____
2. She/he invite you to spend the day or weekend at her/his home. ____
3. She/he take you along on shopping trips. ____
4. _____ chat about what interests you. ____
5. _____ tell you about her/his day-to-day activities. ____
6. You get together for lunch or dinner. ____
7. _____ come to church or community activities with you. ____
8. _____ share vacations with you. ____
9. You celebrate special occasions like religious or cultural holidays, e.g., Thanksgiving, Christmas, New Years, etc. ____
10. You celebrate family occasions such as birthdays, anniversaries, weddings, etc. ____
11. _____ play cards or other games with you. ____
12. Work along with you e.g., getting dinner. ____
13. Are there other things you do together? Specify: _____

13. [SOCIAL SUPPORT: EMOTIONAL: RELATIONAL SENTIMENTS]

[SHOW CARD 2]

To what extent do you agree or disagree with the following statements?

1. _____ is a person who I feel close to. ____
2. _____ is someone whose company I enjoy. ____
3. I can confide in _____. ____
4. _____ comforts me. ____
5. _____ makes me feel important. ____
6. _____ makes me feel angry. ____
7. _____ is someone I can depend on in a crisis. ____

14. [SOCIAL SUPPORT: EMOTIONAL: SELF-FEELING]

[SHOW CARD 2]

To what extent do the following statements describe your relationship with _____?

1. _____ makes me feel respected. ____
2. _____ makes me feel useful. ____
3. _____ makes me feel self-sufficient. ____
4. _____ makes me feel independent. ____
5. _____ makes me feel accepted. ____
6. _____ makes me feel secure. ____

The next few questions concern your health, particularly during the past six months.

15. Have you been sick at any time during the past six months?

( ) 1. Yes
( ) 2. No

16. How serious an illness was it? Was it:

( ) 1. Very serious
( ) 2. Fairly serious
( ) 3. Not very serious

17. About how many days have you been bothered by illness during the last six months?

DAYS ___

18. Do you have any long standing health trouble or physical disability?

( ) 1. No [GO TO Q21]
( ) 2. Yes

19. What type of problem is it? [CIRCLE ALL MENTIONED]

20. How serious a problem is this for you, i.e. does it affect your activities of day to day living?

		Very Seriously	Fairly Seriously	Not Very Seriously
Heart	1	1	2	3
Cancer	1	1	2	3
Arthritis	1	1	2	3
Vision	1	1	2	3
Stomach ulcers	1	1	2	3
Other[SPECIFY] a._____				
b._____				

21. I'm going to read you a list of various health troubles and complaints people sometimes have. For each one would you tell me whether you have been bothered by it quite a lot, a little, or not at all during the past six months.

	Quite a lot	A little	Not at all	
	1	2	3	
a.	Colds or flu			___
b.	Headaches			___
c.	Nervousness or tenseness			___
d.	Aches and pains in muscles and joints			___
e.	Feeling generally run down			___
f.	Having difficulty sleeping			___
g.	Having difficulty eating			___
h.	Feeling depressed			___

22. How would you describe your state of health, would you say it was...

( ) 1. excellent
( ) 2. very good
( ) 3. good
( ) 4. fair, or
( ) 5. poor?

23. Now what about your physical fitness, that is, the amount of energy you have and your endurance. Would you describe it as...

( ) 1. excellent
( ) 2. very good
( ) 3. good
( ) 4. fair, or
( ) 5. poor?

[SHOW CARD 3]

24. In general, how satisfied or dissatisfied are you with your health and physical condition? Number ___

[SHOW CARD 3]

25. In general, how satisfied or dissatisfied are you with the health care and medical services available to you?

Number ___

26. If it were totally up to you and if you required help on a regular basis at sometime in the future, what would be your preference for where you would live?

[PROBE: live at home with help from friends/family or use agencies such as public health nurse, meals on wheels, home care or retirement home or nursing home or a paid companion].

27. [PSYCHOLOGICAL WELL-BEING]

I am going to read you a number of statements and I would like you to tell me how you feel about each one using the categories on the card.

[SHOW CARD 4] You can just tell me the number that fits the way you feel?

		Number
1.	I feel nervous.	____
2.	I feel under pressure.	____
3.	My hands sometimes shake.	____
4.	I feel tense.	____
5.	New situations make me tense.	____
6.	I feel tight inside.	____
7.	I startle easily.	____
8.	When I get angry, I stay angry.	____
9.	I yell at people.	____
10.	I feel like I am boiling inside.	____
11.	I lose my temper.	____
12.	I feel angry.	____
13.	I get into fights and arguments.	____
14.	I feel sad.	____
15.	I cry and don't know why.	____
16.	I feel hopeless.	____
17.	I feel ashamed of myself.	____
18.	I don't feel worth much.	____
19.	People would be better off without me.	____

We've talked about how you feel. Now, I am going to read a number of statements to you that might describe your relationship with _____. Again, using the categories on this card, please tell me which one fits best.

[SHOW CARD 5]

28. [PBI]

		Number
1.	Is affectionate to me	___
2.	Is overprotective of me.	___
3.	Does not seem to understand what I need or want.	___
4.	Does not help me as much as I need.	___
5.	Does not talk with me very much.	___
6.	Likes me to make my own decisions.	___
7.	Invades my privacy.	___
8.	Enjoys talking things over with me.	___
9.	Seems emotionally cold to me.	___
10.	Frequently smiles at me.	___
11.	Appears to understand my problems and worries.	___
12.	Tends to baby me.	___
13.	Can make me feel better when I am upset.	___
14.	Speaks to me with a warm and friendly voice.	___
15.	Makes me feel I am not wanted.	___
16.	Tries to control everything I do.	___
17.	Lets me decide things for myself.	___
18.	Does not praise me.	___

Now turning back for a few last questions about you for a moment.

29. In addition to being a Canadian or living in Canada what is your main ancestry or ethnic group?

[ACCEPT TWO RESPONSES]

( ) 1. British (includes England, Scotland, Wales)
( ) 2. French
( ) 3. German
( ) 4. Irish
( ) 5. Italian
( ) 6. Other _____
specify
( ) 7. (Ref)
( ) 8. (DK)
( ) 9. (NA)

30. What is the highest level of education that you have completed? (If you were not educated in this country please give the category which best describes your educational attainment).

[SHOW CARD 6] Please tell me the letter on this card that corresponds to your educational level.

A( ) 01. No formal schooling
B( ) 02. Some elementary or public school
C( ) 03. Completed public or elementary school
D( ) 04. Some high school
E( ) 05. Completed high school
F( ) 06. Vocational or technical college
G( ) 07. Special diplomas - e.g., teaching, nursing
H( ) 08. Some university
I( ) 09. Graduated from university

( ) 77. (Ref)
( ) 88. (DK)
( ) 99. (NA)

31. What about your spouse? [OR LATE SPOUSE]

[SHOW CARD 6]

A( ) 01. No formal schooling
B( ) 02. Some elementary or public school
C( ) 03. Completed public or elementary school
D( ) 04. Some high school
E( ) 05. Completed high school
F( ) 06. Vocational or technical college
G( ) 07. Special diplomas - e.g., teaching, nursing
H( ) 08. Some university
I( ) 09. Graduated from university

( ) 77. (Ref)
( ) 88. (DK)
( ) 99. (NA)

32. Thinking about your financial situation, would you say you...

( ) 1. have difficulty making ends meet,
( ) 2. have just enough to get along on, or
( ) 3. are you comfortable?

( ) 7. (Ref)
( ) 8. (DK)
( ) 9. (NA)

33. [SHOW CARD 7]

Could you please tell me which letter on this card corresponds to your (and your spouse's) total income, before taxes, in the past year. Be sure to include income received from all sources: social insurance, pensions, support from other family members, bank interests, annuities, or anything else.

A( ) 01. 7,000 to 7,999
B( ) 02. 8,000 to 9,999
C( ) 03. 10,000 to 12,999
D( ) 04. 13,000 to 14,999
E( ) 05. 15,000 to 19,999
F( ) 06. 20,000 to 24,999
G( ) 07. 25,000 to 29,999
H( ) 08. 30,000 to 34,999
I( ) 09. 35,000 to 39,999
J( ) 10. 40,000 to 44,999
K( ) 11. 45,000 to 49,999
L( ) 12. 50,000 to 54,999
M( ) 13. 55,000 to 59,999
N( ) 14. 60,000 or more

( ) 77. (Ref)
( ) 88. (DK)
( ) 99. (NA)

____ monthly

____ only government pension

Respondent I.D. _____

I want to thank you for all the time and thought you have given to this interview. Since this study is concerned with the way families help one another, we would like to conduct a brief telephone interview with _____. Of course I won't be discussing any of your answers with him/her but it is very important that we hear from both mothers and their adult children. As I'm sure you realize, all the information from parents and children are coded in a computer to give us a broad picture of a large number of families not singling out any particular family.

I would like to send _____ a letter telling him/her we have had an interview with you and would like to ask him/her a few of the same questions. Would you give us his/her address so that we can get in touch.

Name:

Address:

Telephone Number:

CARD 1

1. very frequently
2. frequently
3. occasionally
4. very occasionally
5. never.

CARD 2

1. strongly agree
2. mildly agree
3. neither agree nor disagree
4. mildly disagree
5. strongly disagree

CARD 3

1. very satisfied
2. somewhat satisfied
3. neither satisfied nor dissatisfied
4. somewhat dissatisfied
5. very dissatisfied

CARD 4

1. not at all like me
2. not much like me
3. somewhat like me
4. much like me
5. very much like me

CARDS

1. Very like my relationship
2. Moderately like my relationship
3. Moderately unlike my relationship
4. Very unlike my relationship

CARD 6

A. No formal schooling
B. Some elementary or public school
C. Completed public or elementary school
D. Some high school
E. Completed high school
F. Vocational or technical college
G. Special diplomas - e.g., teaching, nursing
H. Some university
I. Graduated from university

CARD 7

A. 7,000 to 7,999
B. 8,000 to 9,999
C. 10,000 to 12,999
D. 13,000 to 14,999
E. 15,000 to 19,999
F. 20,000 to 24,999
G. 25,000 to 29,999
H. 30,000 to 34,999
I. 35,000 to 39,999
J. 40,000 to 44,999
K. 45,000 to 49,999
L. 50,000 to 54,999
M. 55,000 to 59,999
N. 60,000 --

APPENDIX G

Respondent I.D. _____

To Be Completed After Interview

1. Who else was present during the interview?

( ) 1. No one
( ) 2. R's spouse
( ) 3. R's child(ren)
( ) 4. Other relative
( ) 5. Neighbour or friend
( ) 6. Other
( ) 7. Ref.
( ) 8. DK
( ) 9. NA

2. Do you think this affected the respondent's answers in any way?

( ) 1. Yes
( ) 2. No
( ) 7. Ref
( ) 8. DK
( ) 9. NA

Comments _____

_____

_____

3. Rate the cooperation of the respondent:

( ) 1. Cooperative with interest
( ) 2. Cooperative but indifferent
( ) 3. Changeable, uncertain, anxious
( ) 4. Suspicious, guarded
( ) 5. Hostile, uncooperative
( ) 7. Ref.
( ) 8. DK
( ) 9. NA

4. Were there any sections where you suspect you received untruthful answers? Specify:

_____

_____

_____

5. Rate R's use of English

( ) 1. Complete fluency, no accent
( ) 2. Complete fluency, some accent
( ) 3. Fairly fluent
( ) 4. Has difficulty with English

6. Type of Dwelling

( ) 1. Private home
( ) 2. Duplex
( ) 3. townhouse
( ) 4. Apartment building with less than 20 units
( ) 5. Apartment building with 21-50 units
( ) 6. Apartment building with more than 50 units
( ) 7. Other (specify)

R's Condition

7. Memory for Recent Events:

( ) 1. Good
( ) 2. Fair
( ) 3. Poor

8. Memory for Remote Events:

( ) 1. Good
( ) 2. Fair
( ) 3. Poor

9. Mood:

( ) 1. Normal
( ) 2. Depressed
( ) 3. Apathetic
( ) 4. Euphoric

10. Hearing:

( ) 1. Could use normal speaking voice
( ) 2. Had to raise voice slightly
( ) 3. Slow and sometimes confused
( ) 4. Unable to hear

11. Comprehension:

( ) 1. Quick and correct
( ) 2. Slow but correct
( ) 3. Slow and sometimes confused
( ) 4. Quick but not often correct
( ) 5. Barely able to follow

12. Speech:

( ) 1. Normal
( ) 2. Slow or hesitant
( ) 3. Difficult or mumbling

13. Activity:

( ) 1. Normally active
( ) 2. Confined to house
( ) 3. Confined to wheelchair
( ) 4. Confined to bed

14. Gait:

( ) 1. Walks normally
( ) 2. Some difficulty, but can get most places
( ) 3. Considerable difficulty, e.g., can't manage steps, buses, etc.
( ) 4. Great difficulty, needs walker, etc.

15. Sight:

( ) 1. Reads cards easily
( ) 2. Reads cards with some difficulty
( ) 3. Cannot read cards, but sees enough to get about
( ) 4. Sight so poor, has difficulty getting about

Date interview completed: _____
Day Month Year

Interviewer's I.D. Number _____

APPENDIX H

Respondent I.D. (Birth order) (Child's First Name)

CHILD FACT SHEET

[ONLY FOR AGE 18 AND OVER IF STILL LIVING]

C1. Is _____ male or female [ASK IF NECESSARY]

1 ___Male
2 ___Female

C2. Was _____ raised by you?

1 ___yes
2 ___no
3 ___Partly
7 ___(Refusal)
8 ___(Don't know)
9 ___(Not applicable)

C3. What is the present marital status of _____?

1 ___Single
2 ___Married
3 ___Widowed
4 ___Separated or divorced
5 ___Living in a common law union
6 ___Just living together
7 ___(Refusal)
8 ___(Don't know)
9 ___(Not applicable)

C4. Does _____ have any children?

( ) Yes -- How many? _____ [RECORD NUMBER]
( ) No [IF NONE, GO TO QUESTION 5]

C5. Where does _____ presently live?

1 ___ Same household
2 ___ Kitchener or Waterloo .. i.e. same town or city
...What is the distance between your homes?
Would you say
1 ___Less than a mile
2 ___1-2 miles
3 ___More than 2 miles
___(Refusal)
8 ___(Don't know
9 ___(Not applicable.
3 ___ Outside of Kitchener-Waterloo but less than 1 1/2 hour drive
4 ___ 1 1/2 hour drive or more but same province: (SPECIFY CITY)_____
5 ___ Other province within Canada: (SPECIFIY PROVINCE) _____
6 ___ Other country: (SPECIFY COUNTRY) _____
7 ___ (Refusal)
8 ___ (Don't know)
9 ___ (Not applicable)

C6. When did you last see (him/her)? Would you say:

1 ____ Today or yesterday
2 ____ 2-7 days ago
3 ____ 8-30 days ago
4 ____ more than 1 month, up to and including 6 months
5 ____ More than 6 months, up to and including 12 months
6 ____ More than one year
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

C7. About how long did you spend together?

1 ____ Less than 15 minutes
2 ____ 15-29 minutes
3 ____ More than 1 hour but less than 2 hours
4 ____ More than 2 hours but less than 4 hours
5 ____ More than 4 hours
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

C8. In the past year, how often have you seen (him/her)? Would you say:

(IF PATTERN CHANGED OVER LAST YEAR, E.G., BECAUSE OF A MOVE, GET MOST RECENT PATTERN).

0 ____ Never

1 ____ Every day or two (3-7 per week) ... About how many hours a week do you usually spend in each other's company?

_____ (NUMBER) __ __

2 ____ Once or twice a week ... About how many hours a week do you usually spend in each other's company? _____ (NUMBER) __ __

3 ____ At least once a month but less than once a week ... About how many hours a month do you usually spend in each other's company?

_____ (NUMBER) __ __

4 ____ 2-11 times a year ... About how long/many hours are your visits? _____ (NUMBER) __ __

5 ____ Once a year ... About how long/many hours are your visits?

_____ (NUMBER) __ __

6 ____ Less often than once a year ... About how long/many hours are your visits?

_____ (NUMBER) __ __

7 ____ (Refusal)

8 ____ (Don't know)

9 ____ (Not applicable)

C9. In the past year, how often have you spoken on the phone with (him/her)? Would you say:

(IF PATTERN CHANGED OVER LAST YEAR, E.G., BECAUSE OF A MOVE GET RECENT PATTERN)

0 ____ Never
1 ____ Every day or two (3-7 per week)
2 ____ Once or twice a week
3 ____ At least once a month but less than once a week
4 ____ 2-11 times a year
5 ____ Once a year
6 ____ Less often than once a year
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

(IF SON GO TO C13)

C10. Does your daughter work outside the home?

1 ____ Full-time
2 ____ Part-time
3 ____ Not at all
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

C11. Does this affect your relationship?

1 ____ Yes
2 ____ No
3 ____ a little
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

C12. In what ways?

_____

_____

_____

C13. Taking everything into consideration, how close do you feel is the relationship between you and _____? Would you say it is ...

1 ____ Not close
2 ____ Not too close
3 ____ Somewhat close
4 ____ Close
5 ____ Very close
6 ____ Extremely close
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

APPENDIX I

ADULT CHILD

_____
Respondent I.D.

Hello, May I speak to Mr./Mrs. _____. My name is _____ and I am calling in connection with the Wilfrid Laurier University study on the way families help each other. We have recently interviewed your Mother, Mrs. _____ and she very kindly provided us with your name so that we could talk to at least one other family member. Did you receive our letter?

[IF NO] I'm very sorry that you did not receive the letter. It would have informed you that we had interviewed your mother and would be contacting you for a brief telephone interview lasting no more than 20 minutes.

All answers are confidential and your name will never be used. As I'm sure you realize, all the information from parents and children are coded in a computer to give us a broad picture of a large number of families not singling out any one in particular.

You might find it useful to have a paper and pencil handy [WAIT]
[PROBE IF NECESSARY: If this is not a convenient time perhaps I could call back _____.]

1. I understand you live in _____. What is the distance between your home and your Mother's home?
[IF IN TOWN] would you say...

( ) 1. less than a mile
( ) 2. 1 - 2 miles
( ) 3. more than 2 miles

[IF NOT IN TOWN] would you say...

( ) 4. less than 1 1/2 hr. drive
( ) 5. 1 1/2 hr. drive or more
( ) 6. Other _____
( ) 7. (Ref)
( ) 8. (DK)
( ) 9. (NA)

2. In the past year, how often have you usually seen your mother? [PAUSE]

(IF PATTERN CHANGED OVER LAST YEAR, E.G., BECAUSE OF A MOVE, GET MOST RECENT PATTERN).

0 ____ Never

1 ____ Every day or two (3-7 per week) ... About how many hours a week do you usually spend in each other's company?

_____
(NUMBER)

2 ____ Once or twice a week ... About how many hours a week do you usually spend in each other's company? _____
(NUMBER)

3 ____ At least once a month but less than once a week ... About how many hours a month do you usually spend in each other's company?

_____
(NUMBER)

4 ____ 2-11 times a year ... About how long/many hours are your visits? _____
(NUMBER)

5 ____ Once a year ... About how long/many hours are your visits?

_____
(NUMBER)

6 ____ Less often than once a year ... About how long/many hours are your visits?

_____
(NUMBER)

7 ____ (Refusal)

8 ____ (Don't know)

9 ____ (Not applicable)

3. In the past year, how often have you spoken on the phone with your mother?

(IF PATTERN CHANGED OVER LAST YEAR, E.G., BECAUSE OF A MOVE GET RECENT PATTERN)

0 ____ Never
1 ____ Every day or two (3-7 per week)
2 ____ Once or twice a week
3 ____ At least once a month but less than once a week
4 ____ 2-11 times a year
5 ____ Once a year
6 ____ Less often than once a year
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

4. Taking everything into consideration, how close do you feel is the relationship between you and your mother? Would you say it is ...

1 ____ Not close
2 ____ Not too close
3 ____ Somewhat close
4 ____ Close
5 ____ Very close
6 ____ Extremely close
7 ____ (Refusal)
8 ____ (Don't know)
9 ____ (Not applicable)

People, particularly in families, often help each other out in a lot of different ways. We are interested in how frequently you help your mother but before describing some possible ways, perhaps you could jot down these categories with numbers beside them.

#1 very frequently
#2 frequently
#3 occasionally
#4 very occasionally
#5 never

[REPEAT NUMBERS AND CATEGORIES]

Now if you will just give me the number that corresponds to the frequency category that best describes how often you do any of the following things for your mother.

5. [SOCIAL SUPPORT: SERVICE]

1. Household chores, e.g., cleaning, cooking ____
2. Errands, e.g., grocery shopping ____
3. Minor household repairs, e.g., fixing a tap ____
4. Help when she's not feeling well. ____
5. Drive her for appointments or shopping. ____
6. Talk to other people to arrange something for her, e.g., repairman. ____
7. Help her with a big chore such as spring housecleaning, sorting things or moving. ____
8. Help with personal care, e.g., bathing, dressing. ____
9. Help in writing letters, cheques, etc. ____

6. [SOCIAL SUPPORT: FINANCIAL AND ADVICE]

Sometimes people help each other out in a very practical way by giving them financial assistance or giving them some guidance in financial or legal matters. Using the same frequency categories...

How often do you do any of the following for your mother?

1. Financially assist her with rent/mortgage payments? ____
2. Give her money? ____
3. Provide her with gifts of clothing, something she really wants/needs. ____
4. Financially assist with other bills. ____
5. Help her with her income tax. ____
6. Help with major decisions (e.g., about moving) ____
7. Advise her what to do about her health. ____
8. Discuss alternative plans with her (e.g., financial plans, vacation plans, household renovations or anything like that). ____

7. [SOCIAL SUPPORT: SOCIALIZING]

How often do you do the following activities with your mother?

1. Watch a T.V. program with her. ____
2. Invite her to spend the day or weekend at your home. ____
3. Take her along on shopping trips. ____
4. Chat about what interests her. ____
5. Tell her about your day-to-day activities. ____
6. Get together for lunch or dinner. ____
7. Go to church or community activities with her. ____
8. Share vacations with her. ____
9. Celebrate special occasions like religious or cultural holidays, e.g., Thanksgiving, Christmas, New Years, etc. ____
10. Celebrate family occasions such as birthdays, anniversaries, weddings, etc. ____
11. Play cards or other games with her. ____
12. Work along with her e.g., getting dinner. ____
13. Are there other things you do together? Specify:

Now for the next statements there are five categories of agreement. Perhaps you could jot these down.

#1 strongly agree
#2 mildly agree
#3 neither agree nor disagree
#4 mildly disagree
#5 strongly disagree

8. [SOCIAL SUPPORT: EMOTIONAL: RELATIONAL SENTIMENTS]

To what extent do you agree or disagree with the following statements?

1. I am a person Mother feels close to. ____
2. I am someone whose company Mother enjoys. ____
3. Mother can confide in me. ____
4. I comfort Mother. ____
5. I make Mother feel important. ____
6. I make Mother feel angry. ____
7. I am someone Mother can depend on in a crisis. ____

9. [SOCIAL SUPPORT: EMOTIONAL: SELF-FEELING]

Again using the same categories of agreement....

To what extent do the following statements describe your relationship with your mother?

1. I make her feel respected. ____
2. I make her feel useful. ____
3. I make her feel self-sufficient. ____
4. I make her feel independent. ____
5. I make her feel accepted. ____
6. I make her feel secure. ____

10. How would you describe your Mother's state of health overall, would you say it was...

( ) 1. excellent
( ) 2. very good
( ) 3. good
( ) 4. fair, or
( ) 5. poor?

11. Now what about her physical fitness and the amount of energy she has? Would you describe it as....

( ) 1. excellent
( ) 2. very good
( ) 3. good
( ) 4. fair, or
( ) 5. poor?

12. If it were totally up to you and if your mother required help on a regular basis at sometime in the future, what would be your preference for where she would live?

[PROBE: live at home with help from friends/family or paid help or agencies such as public health nurse, meals on wheels, home care or retirement home or nursing home or a paid companion].

_____

_____

_____

_____

We've talked quite a bit about what you do for your mother. Now, I am going to read a number of statements to you that might describe your relationship with your mother.

This time we are using four descriptive categories, perhaps you could jot these down....

1. very like my relationship with Mother.
2. moderately like my relationship with Mother.
3. moderately unlike my relationship with Mother.
4. very unlike my relationship with Mother.

13. [PBI] [READ CATEGORIES AFTER FIRST 2 or 3 STATEMENTS] Number

1. Mother is affectionate to me. ____
2. Mother is overprotective of me. ____
3. Mother does not seem to understand what I need or want. ____
4. Mother does not help me as much as I need. ____
5. Mother does not talk with me very much. ____
6. Mother likes me to make my own decisions. ____
7. Mother invades my privacy. ____
8. Mother enjoys talking things over with me. ____
9. Mother seems emotionally cold to me. ____
10. Mother frequently smiles at me. ____
11. Mother appears to understand my problems and worries. ____
12. Mother tends to baby me. ____
13. Mother can make me feel better when I am upset. ____
14. Mother speaks to me with a warm and friendly voice. ____
15. Mother makes me feel I am not wanted. ____
16. Mother tries to control everything I do. ____
17. Mother lets me decide things for myself. ____
18. Mother does not praise me. ____

Now turning to a few last questions about you ....

14. What is your employment status at the present time?

(a) [IF WOMAN] are you
( ) 1. homemaker
( ) 2. employed outside the home part-time
( ) 3. employed outside the home full-time
( ) 4. unemployed and looking for work
( ) 5. or something else e.g., on strike. _____

(b) [IF MAN] are you
( ) 1. employed full-time
( ) 2. employed part-time
( ) 3. unemployed and looking for work
( ) 4. or something else e.g., on strike. _____

15. I am going to read you some income ranges. Could you please tell me what range corresponds to your total household income, before taxes, in the past year.

A( ) 01. 10,000 to 19,000
B( ) 02. 20,000 to 29,000
C( ) 03. 30,000 to 39,000
D( ) 04. 40,000 to 49,000
E( ) 05. 50,000 to 59,000
F( ) 06. 60,000 or more
G( ) 77. (Ref)
H( ) 88. (DK)
I( ) 99. (NA)

Thank you Mr./Mrs. _____ for all the time and thought you have given to this interview. As I mentioned earlier, your answers are completely confidential. As I'm sure you realize, all the information from parents and children are coded in a computer to give us a broad picture of a large number of families, not singling out any particular family. Although this study is a very time-consuming one we will be sending you a brief report detailing our findings within the next six months. Thank you again for your co-operation.

APPENDIX J

Revisions to PBI

The revised PBI developed by Pettinger (1985) included all items from the PBI devised by Parker, Tupling and Brown (1979) except the following which were not applicable to the elderly:

3. "Let me do those things I liked doing."
8. "Did not want me to grow up."
19. "Tried to make me dependent on him/her."
20. "Felt I could not look after myself unless he/she was around."
21. "Gave me as much freedom as I wanted."
22. "Let me go out as often as I wanted."
25. "Let me dress in any way I pleased."

APPENDIX K

Revision of Social Support Scales

The social support scales used are based on those developed by Lopata (1978).
In order to make the items more applicable to an elderly population, items were reworded by Dr. Lane and devised by Synge.
In addition, some items were taken from the scales by Vaux (1982), and Marshall, Rosenthal and Synge (1980).

(a) SOCIAL SUPPORT: SERVICE

1. - revised item from Lopata service dimension (e.g., housework)
2. - reworded item from Lopata service dimension (e.g., shopping)
3. - item from Lopata service dimension with examples added
4. - reworded item from Lopata service dimension (e.g., help in illness)
5. - Marshall et al. combined items from Vaux and Lopata (e.g, transportation)
6. - item from Vaux service dimension
7. - revised item from Vaux service dimension
8. - item devised by Marshall et al.
9. - item devised by Marshall et al.

(b) SOCIAL SUPPORT: FINANCIAL AND ADVICE

1. - item from Lopata financial dimension
2. - item from Lopata financial dimension
3. - item from Lopata financial dimension
4. - item from Lopata financial dimension
5. - item from Vaux advice dimension
6. - item from Lopata service dimension
7. - item from Vaux advice dimension
8. - item from Vaux advice dimension with examples added (e.g., "financial plans, vacation plans, household renovations or anything like that")

(c) SOCIAL SUPPORT: SOCIALIZING

1. - Lane and Synge revised social items from Vaux and Lopata
2. - item devised by Lane and Synge
3. - Lane and Synge revised Lopata service item
4. - item devised by Lane and Synge
5. - item devised by Lane and Synge
6. - item from Lopata social dimension
7. - item from Lopata social dimension
8. - item from Lopata social dimension
9. - item from Lopata social dimension
10. - item devised by Lane and Synge
11. - item from Lopata social dimension (omitted reference to sports)

12. - item devised by Lane and Synge
13. - item from Lopata social dimension

(d) SOCIAL SUPPORT: EMOTIONAL: RELATIONAL SENTIMENTS

All seven items from Lopata relational sentiments dimension

(e) SOCIAL SUPPORT: EMOTIONAL: SELF-FEELING

All six items from Lopata self-feeling dimension

APPENDIX L

Mean Care and Overprotection Score for Mother-Generated and Child-Generated Discrepancy Data Based on Items 5, 9 and 18 for Care, and 2 and 12 for Overprotection

Variable	Mean	Standard Deviation	Label
Mother Care Score	3.596	.509	very high care
Child Care Score	3.675	.499	very high care
Discrepancy in Care	5.4	2.739	mother care score > child's
Mother Over Score	3.153	.831	very low control
Child Over Score	2.694	1.006	very low control
Discrepancy in Over	.918	2.546	mother over score > child's

Note. There are 3 items for care scores and 2 items for overprotection scores.

APPENDIX M

Pearson Correlations of Mother-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, Frequency of Contact, and Discrepancy Scores for Care and Overprotection

	FREQ	DCARE	DOVER	FSSS	FSER	FSES
FREQ	1.000 P=****					
DCARE	.084 P=.221	1.000 P=****				
DOVER	.131 P=.116	.124 P=.129	1.000 P=****			
FSSS	-.537 P=.001	-.198 P=.035	.152 P=.083	1.000 P=****		
FSER	-.112 P=.153	-.218 P=.022	.217 P=.023	.238 P=.014	1.000 P=****	
FSES	-.236 P=.015	-.181 P=.049	.199 P=.034	.309 P=.002	.339 P=.001	1.000 P=****

Note. FREQ = Frequency of contact; FSSS = Socializing; FSER = Relational Sentiments; FSES = Self-feeling States; DCARE = Discrepancy between mother and child care scores for items 5, 9 and 18; DOVER = Discrepancy between mother and child scores for items 2 and 12; n=85 for all groups.

APPENDIX N

Pearson Correlations of Emotional Closeness Item, Discrepancy of Care and Overprotection, and Reciprocity of Care and Overprotection

	FREC	CREC	DCARE	DOVER	RCARE	ROVER
FREC	1.000 P=****					
CREC	.345 P=.001	1.000 P=****				
DCARE	.176 P=.053	.304 P=.002	1.000 P=****			
DOVER	-.152 P=.083	-.006 P=.478	.678 P=.001	1.000 P=****		
RCARE	-.095 P=.193	-.220 P=.021	-.158 P=.074	.047 P=.334	1.000 P=****	
ROVER	.136 P=.108	.051 P=.320	.497 P=.001	.501 P=.001	-.074 P=.250	1.000 P=****

Note. REC = Emotional closeness (How close do you feel is your relationship with ...?); n=85; F = mother's perspective, C = child's perspective, D = Discrepancy, R = Reciprocity

APPENDIX O

Pearson Correlations of Child-Generated Data for Socializing, Relational Sentiments, Self-Feeling States, Frequency of Contact, and Discrepancy Scores for Care and Overprotection

	FREQ	DCARE	DOVER	ASSS	ASER	ASES
FREQ	1.000 P=****					
DCARE	-.030 P=.393	1.000 P=****				
DOVER	.097 P=.189	.124 P=.129	1.000 P=****			
ASSS	-.314 P=.002	-.020 P=.426	.024 P=.415	1.000 P=****		
ASER	-.304 P=.002	.115 P=.147	.037 P=.368	.448 P=.001	1.000 P=****	
ASES	-.283 P=.004	-.104 P=.172	.029 P=.397	.425 P=.001	.408 P=.001	1.000 P=****

Note. FREQ = Frequency of contact; ASSS = Socializing; ASER = Relational Sentiments; ASES = Self-feeling States; DCARE = Discrepancy between mother and child care scores for items 5, 9 and 18; DOVER = Discrepancy between mother and child overprotection scores for items 2 and 12; n=85 for all groups.

APPENDIX P

Pearson Correlations of Mother-Generated, Child-Generated, and Discrepancy Data Based on Items 5, 9, and 18 for Care, and Items 2 and 12 for Overprotection

	MCARE	MOVER	CCARE	COVER	DCARE	DOVER
MCARE	1.000 P=****					
MOVER	-.054 P=.312	1.000 P=****				
CCARE	.388 P=.001	-.238 P=.014	1.000 P=****			
COVER	-.182 P=.048	.050 P=.326	-.161 P=.070	1.000 P=****		
DCARE	.567 P=.001	.163 P=.068	-.540 P=.001	-.022 P=.421	1.000 P=****	
DOVER	.109 P=.161	.614 P=.001	-.028 P=.401	-.758 P=.001	.124 P=.129	1.000 P=****

Note. M = Mother's perspective; C = Child's Perspective; DCARE = Discrepancy between mother and child care scores for items 5, 9 and 18; DOVER = Discrepancy between mother and child overprotection scores for items 2 and 12; n=85 for all groups.

APPENDIX Q

Dependent T-tests for Mother-Generated, Child-Generated and Discrepancy Data Using Items 5, 9 and 18 for Care, and Items 2 and 12 for Overprotection

Variables	Mean	Standard Deviation	Corr.	2-Tail Prob	Df	T-value	2-Tail Prob
MOVER	3.15	.831	.049	.653	84	3.32	.001 ***
COVER	2.69	1.006					
MCARE	3.60	.509	.388	.001	84	-1.30	.198
CCARE	3.67	.499					
DCARE	-.08	.558	.124	.258	84	-3.74	.001 ***
DOVER	.46	1.273					
MCARE	3.60	.509	-.054	.624	84	4.09	.001 **
MOVER	3.15	.831					
CCARE	3.67	.499	-.161	.140	84	7.58	.001 ***
COVER	2.69	1.006					

Note. M = Mother's perspective; C = Child's perspective; DCARE = Discrepancy between mother and child care scores for items 5, 9 and 18; DOVER = Discrepancy between mother and child overprotection scores for items 2 and 12; n=85 for all groups.

** $p < .01$
*** $p < .001$

APPENDIX R

Percentage of Items which are Not Applicable from the Mother's Perspective as Mother does it Herself, Receives Aid from her Spouse or Another Child, or Hires Someone

Criterion Variable: Service (Mother's Perspective)

Item	% Mothers	% Spouse	% Another Child	% Hired Help
1.	49	4	1	7
2.	41	13	2	4
3.	4	32	4	19
4.	32	9	0	5
5.	48	12	2	4
6.	50	10	1	2
7.	29	7	2	11
8.	98	0	0	1
9.	92	2	0	0

Criterion Variable: Financial/Advice (Mother's Perspective)

Item	% Mothers	% Spouse	% Another Child	% Hired Help
1.	74	0	0	0
2.	73	0	0	0
3.	70	0	0	1
4.	72	0	0	0
5.	21	11	4	38
6.	58	2	1	1
7.	14	0	1	0
8.	13	1	2	0

APPENDIX S

Pearson Correlations of Emotional Closeness Item, Frequency of Contact, Socializing, Relational Sentiments and Self-Feeling States from the Perspective of the Mother

	CLOSE	FREQ	FSSS	FSER	FSES
CLOSE	1.000 P=****				
FREQ	.277 P=.003	1.000 P=****			
FSSS	-.238 P=.008	-.551 P=.001	1.000 P=****		
FSER	-.238 P=.009	-.022 P=.413	.191 P=.029	1.000 P=****	
FSES	-.114 P=.129	-.156 P=.061	.275 P=.003	.388 P=.001	1.000 P=****

Note. CLOSE = Emotional closeness; FREQ = Frequency of contact; FSSS = Socializing; FSER = Relational Sentiments; FSES = Self-feeling States; n=100 for mother data.

APPENDIX T

Means and Standard Deviations for Rating of Relationship, Frequency of Phoning and Visiting, and Date and Duration of Last Visit using Mother Data

Variable	Mean	Standard Deviation	Label
Rating of Relationship	5.04	.763	very close
Visiting	4.54	1.049	1-2 times a week
Phoning	5.05	.936	1-2 times a week
Last Visit	4.81	.982	2-7 days ago
Duration of Last Visit	4.07	1.297	2-4 hours

Note. There is one item for each variable.

APPENDIX U

Pearson Correlations of Geographic Proximity, Frequency of Contact, Phoning and Visiting from the Perspective of the Mother

	GEOG	FREQ	VISIT	PHONE
GEOG	1.000 P=****			
FREQ	-.550 P=.001	1.000 P=****		
VISIT	-.643 P=.001	.850 P=.001	1.000 P=****	
PHONE	-.247 P=.007	.807 P=.001	.374 P=.001	1.000 P=****

Note. n=100 for mother data.

APPENDIX V

Percentage of Items which are Not Applicable from the Child's Perspective as Mother does it Herself, Receives Aid from her Spouse or Another Child, or Hires Someone

Criterion Variable: Service (Child's Perspective)

Item	% Mothers	% Spouse	% Another Child	% Hired Help
1.	10.6	2.4	0	0
2.	7.1	1.2	0	0
3.	2.4	8.2	0	8.2
4.	16.5	1.2	0	0
5.	14.1	2.4	0	0
6.	11.8	5.9	0	0
7.	4.7	3.5	1.2	4.7
8.	89.4	0	0	1.2
9.	80.0	0	0	0

Criterion Variable: Financial/Advice (Child's Perspective)

Item	% Mothers	% Spouse	% Another Child	% Hired Help
1.	49.4	0	0	0
2.	49.4	0	0	0
3.	49.4	0	0	0
4.	49.4	0	0	1.2
5.	11.8	9.4	0	18.8
6.	12.9	0	0	0
7.	5.9	0	0	1.2
8.	2.4	0	0	0

APPENDIX W

Pearson Correlations of Emotional Closeness Item, Frequency of Contact, Socializing, Relational Sentiments and Self-Feeling States from the Perspective of the Child

	CLOSE	FREQ	ASSS	ASER	ASES
CLOSE	1.000 P=****				
FREQ	.375 P=.001	1.000 P=****			
ASSS	-.540 P=.001	-.314 P=.002	1.000 P=****		
ASER	-.573 P=.001	-.304 P=.002	.448 P=.001	1.000 P=****	
ASES	-.340 P=.001	-.283 P=.004	.425 P=.001	.408 P=.001	1.000 P=****

Note. CLOSE = Emotional closeness; FREQ = Frequency of contact; ASSS = Socializing; ASER = Relational Sentiments; ASES = Self-feeling States; n=85 for child data.

APPENDIX X

Means and Standard Deviations for Rating of Relationship, and Frequency of Visiting and Phoning using Child Data

Variable	Mean	Standard Deviation	Label
Rating of Relationship	4.66	1.086	very close
Visiting	4.68	.929	1-2 times a week
Phoning	5.20	.793	1-2 times a week

Note. There is one item for each variable.

APPENDIX Y

Pearson Correlations of Geographic Proximity, Frequency of Contact, Phoning and Visiting from the Perspective of the Child

	GEOG	FREQ	VISIT	PHONE
GEOG	1.000 P=****			
FREQ	-.629 P=.001	1.000 P=****		
VISIT	-.714 P=.001	.917 P=.001	1.000 P=****	
PHONE	-.378 P=.007	.871 P=.001	.603 P=.001	1.000 P=****

Note. n=85 for child data.